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# PHOTO-ERA MAGAZINE

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THE SPIRIT OF WEST POINT
W. H. STOCKBRIDGE

# PHOTO-ERA MAGAZINE

**The American Journal of Photography**


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## A Camera-Huntsman's Equipment

MARIUS MAXWELL

(*From* "Stalking Big Game with a Camera.")

I HAVE from time to time been requested to offer suggestions as to what equipment would be most desirable for a photographic trip to East Africa. Everyone has naturally his own choice and ideas in the matter of cameras, and I can only describe, as an amateur, the outfit that suited my purpose best, and give the reasons for my preference for a certain type of camera and the requisite lenses.

In undertaking the more awkward work of stalking the African elephant in its secluded haunts, the question naturally arises—why not make use of the advantages of a telephoto-camera?

A telephoto-lens would indeed facilitate the work greatly; but a moment's consideration will bring the conviction that a telephoto-lens of even moderate power will prove unsatisfactory, if not entirely useless, when it is intended to be used for animals whose habits are partly nocturnal, which remain in the dense bush during the day and are only to be found in the open at break of day or late in the evening when the light-conditions are such that even the most rapid of modern lenses will not always give sufficient exposure of the film or plate.

After innumerable failures and disappointments with extra-rapid films, I arrived at the conclusion that for this kind of work, where the use of a hand-camera is imperative, to photograph moving objects in poor light, lenses with the largest possible apertures are necessary, namely, those which work at F/4.5 or an even larger aperture. The duration of the exposure has to be limited to a maximum of one twenty-fifth part of a second, as with longer exposures it is difficult for the operator to keep the camera steady, taking into consideration the possibility that the exposures are to be made under conditions of excitement, at close quarters with game that may prove truculent, and which at times is directly facing the operator.

Take for instance a telephoto hand-camera with a lens consisting of a positive element of F/4 aperture and, say, ten-inch focus, and a negative-element to produce two and a half magnifications, which may be accepted as one of the fastest lenses on the market at the present day. The equivalent focal length of the combination is here twenty-five inches and the resulting aperture F/10 correspondingly, even without altering the stop of the diaphragm. Comparing the relative exposures, that of the single lens alone, with F/4 as aperture, and that of the combination adjusted for two and a half magnifications, with correspondingly F/10 as aperture, we find that even this telephoto-combination of extremely low-power requires approximately six times the exposure of the single lens, and this would assuredly prove to be out of the question for moving objects in unfavorable light. Otherwise the range at which satisfactory game-pictures can be made with this type of moderate-power telephoto-lens—about fifty yards—is sufficient to enable the operator to prepare himself in case the animal resents the intrusion.

Other disadvantages attend the use of a telephoto-camera for work that is generally carried out under conditions of inevitable excitement and haste on the part of the photographer, to say nothing of his having to avoid a probable multitude of obstructions with a limited space for manœuvring. The telephoto hand-camera, even quarter-plate size, (3¼ x 4¼) is rather bulky for bush work, and the projecting lens is very cumbersome, making it difficult for the operator to hold the camera steady. Sharp, accurate focusing is, moreover,



XUM

imperative. This takes time, and it would hardly be reasonable to expect the animal to pose for the necessary period, and particularly so in a face to face encounter, such as, for instance, with the subject depicted in the first illustration on page 6. This particular exposure demanded the use of a short-focus lens to suit the environment and of a large aperture for instantaneous work to meet the indifferent lighting-conditions prevailing at the time.

These points were, as I gather, largely responsible for C. G. Schillings's lack of success in endeavoring to photograph the African elephant in bush country with a telephoto-camera.

I am in entire agreement with Schillings that to find these elusive denizens of the African wilds in a suitable bush locality, with reasonable conditions of lighting, requires some effort and is also largely a matter of luck.

Telephotographs frequently show little depth of focus or definition and will not stand enlarging. The flatness of the picture increases with the intensity of the magnification; the results are likely to show not only less detail but also a pronounced vagueness in the surroundings of the subject. Some prefer this and desire the main object to stand out more prominently, leaving the environment somewhat out of focus. This is a matter of taste; but to most interested persons the details of the surroundings, as well as those of the animal itself, are of some value.

Photographing wild life at all times can only be achieved with success when a multitude of conditions are satisfied, and it is not often that such conditions are offered at the critical second when the operator thinks it is the moment to press the release of his camera-shutter. It is a common experience, and at times almost to the point of being uncanny, that some slight accident puts an obstacle in the way and prevents the operator from obtaining the desired result. A branch, a small twig, a few blades of grass; a small bush, conspicuously out of focus, are the trifles most frequently met with; they are sufficiently disastrous to spoil one's efforts.

On one occasion, after a good deal of exciting manœuvring, I happened to succeed in snapping a fine bull elephant at close quarters, but on development it was found that the film presented the creature with a tiny thorn twig circled round in front of one of its eyes, which made it look as though it were wearing a monocle. This was one of the more humorous mishaps. At other times the effect of chance obstacles becomes most aggravating.

As the result of experience I have found that, all things considered, the best type of camera to obtain clear photographs in bush-conditions is the reflex, equipped with a rapid lens of six or ten inches focal length, working at F/3.5 or F/4.5 aperture. It was upon a camera of this description that I relied for the most part. It was made of well-seasoned teakwood and brass-bound for rough tropical wear. The apparatus was fitted with an efficient self-capping focal-plane shutter giving speed-adjustments for one to one thousandth of a second, suitable for slow bush-work as well as for conditions demanding a high speed, as in the case of fast-traveling game on the veld.

This camera outfit may perhaps be supplemented by a spare lens consisting of one of the modern fixed-focus telephoto-lenses, which are in reality mere long-focus lenses that have the advantage of requiring a camera-extension of half their equivalent focal length or thereabouts such as, for instance, the Ross Telecentric with seventeen-inch focus and aperture F/5.4, the Cooke telephoto-anastigmat 12½-inch focus and F/5.8, or the Dallon lens, similar to the Ross Telecentric. All three of these have the position of the so-called nodal plane a certain distance outside the camera and lens, and this accounts for the comparatively short extension required from the bellows.

Occasionally, for photographing the smaller game animals inhabiting the open plains of East Africa, such as the zebra and a number of species of antelope, I have made use of a telephoto-camera with great advantage. With bright light, exposures of one seventy-fifth to one hundredth of a second can be used in telephoto-work of moderate power with from three to four magnifications. The instrument which I employed is an ordinary quarter-plate (3¼ x 4¼) reflex camera with focal-plane shutter operating with speeds ranging from one-fifteenth to one-thousandth of a second for instantaneous work, and it is fitted besides with "time" and "bulb" exposure. The camera, which has not only to withstand the climate in tropical countries but also a fair amount of rough handling, is accordingly built of well-seasoned teakwood with the joints free of glue, being either dovetailed or screwed. The front is fitted with a sliding box-panel to carry the telephoto-lens. The apparatus is neat and handy as far as telephoto-cameras can be, and may be used with either plates or film-packs. The woodwork can be covered with leather to render it less conspicuous, and the fittings lacquered or painted in such a way as to blend with the colors of the particular environment for which it is to be used.

To reduce the weight as much as possible a camera has been chosen for a maximum extension



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*Courtesy of The Century Company*

UNAWARE OF A STRANGER'S PRESENCE

MARIUS MAXWELL

*Courtesy of The Century Company*

THE EAST AFRICAN ELEPHANT

MARIUS MAXWELL

XUM

of eight inches, and this is quite sufficient for the lens under consideration.

The lens may be either a Dallmeyer Grandac or any other modern, low-power telephoto-combination. The one fitted to this particular camera consists of a combination of a well-corrected portrait-lens with a focal length of 10 inches and an aperture as large as F/4, and a negative element with four-inch focal length. The whole is mounted in aluminium for the sake of lightness; but in damp tropical countries the metal is in time liable to become corroded at the settings.

This combination covers a quarter-plate ($3\frac{1}{4} \times 4\frac{1}{4}$) with six-inch extension of the bellows, giving 25-inches focal length and aperture F/10, and would mean that compared with an ordinary ten-inch lens, the operator can be two and a half times as far away from his subject to obtain an image of the same size.

On a bright day, on the plains of East Africa, this combination permits of successful exposures being made of one seventy-fifth to one hundredth of a second, and sometimes even less. It is useful to bear in mind that on the veld in East Africa a telephoto-exposure is rarely attended with success after ten o'clock in the morning, owing to the intense heat haze, which causes the subjects to become abnormally blurred. It may be noted that Radclyffe Dugmore produced some remarkable telephotographs of game animals on the plains of East Africa, which appeared in his "Camera Adventures in the African Wilds".

For very close work in the bush, under awkward conditions, a handy metal stereoscopic camera fitted with the fastest of modern lenses may prove to be the most suitable type of apparatus.

The ultra-rapid Kinematograph lenses with apertures below F/2 promise to be excellent lenses for this kind of work, being, with the same light-conditions, approximately five times as fast as those with F/4.5 aperture.

A pair of these lenses fitted to a stereoscopic reflex camera might prove of the greatest use to the sportsman bent on making snapshots of game in secluded corners of the thick bush. A drawback with these large aperture lenses is, however, that they may not be sufficiently perfect to obtain sharpness in definition when used with their full aperture.

As for the requisite development equipment for a photographic journey into the interior of Africa, the ideal arrangement would be, of course, to have a complete outfit at one's disposal. The developing en route will give one many a useful hint, particularly with regard to correcting exposures. Such an equipment might be carried in mule-trunks at a reasonable cost, but when a trek through a tsetse-fly infested country is in prospect the accessories will have to be carried by porters, which then adds considerably to the expense of the safari, since each additional porter has to be provided with his daily "posho"—ration of ground mealies.

In such circumstances, it becomes more or less a matter of necessity to make arrangements to preserve the exposed films or plates by packing them into air-tight storage tins as soon as possible after exposure, preferably on dry days, and the tins can be securely and conveniently sealed with adhesive tape.

A word may be expected on the subject of rifles, although for detailed discussion I refer the reader to the standard books on sporting trips. The bore of the rifle depends so much on the purpose for which it is to be employed. I may say that even when in pursuit of photographs of the African elephant I have rarely been called upon to use my rifle. A rifle is often too cumbersome to carry in addition to a camera, and hampers the stalking operations.

The method which I have found most successful for obtaining close photographs of the larger African animals, such as elephants, rhinoceroses, and buffaloes, has been evolved only after many unsuccessful trials. I have found that, while the sudden appearance of the photographer is ordinarily sufficient to scare even the most reputedly dangerous of the large game animals, yet, at the same time, it occasionally happens that they will not immediately resort to flight. In some cases the animal hesitates before retiring long enough for the stalker to obtain a picture; in other cases it may approach in an irresolute manner only to retreat disconcerted by the strange appearance of the motionless photographer; in still other cases it may resent and attack the intruder. My practice has been to rely as much as possible on the avoidance of all quick and sudden movements, and whenever possible, to stand quite still. It is remarkable how successful this procedure has proved. It need hardly be emphasised that no precise rules of conduct can be laid down. I have always had to adapt my action to circumstances, and I must refer the reader to the descriptions of my various encounters for a fuller account of the methods by which the pictures were obtained.

The key to whatever success was achieved in the photographs reproduced in this volume lies in my having realised that telephoto-work was incapable of giving me the quality and standard of the results which I desired.

*(By Courtesy of the Century Company, New York.)*

DAWN AND ON THE MOVE — BEATRICE B. BELL

# Soldier-Pictures that are Different

BEATRICE B. BELL

CONSIDERING the splendid opportunities offered, how few really artistic pictures were made during the war. Perhaps views of street-parades, waving flags, and wildly enthusiastic crowds constituted the apparent spirit of the day. But the real pictures of soldier-life, the underlying purpose, the monotonous routine, the homely daily tasks; these were not made on gala days. Cameras in the hands of ordinary mortals were somewhat taboo in military camps; and as ordinary mortals are more often the ones who chance on the choice subjects for photography, there was likely a reason for the dearth of real pictures.

Personally speaking, I didn't make any soldier-pictures in war-time, so I am not being egotistical. The shoe fits me just as well as it does anyone. But now that restrictions are over, let's see if we can't produce something worth while: something that will thrill the beholder and fill him with pride in the protectors of his country.

The pictures that accompany this article are not offered as examples of real art; but merely as suggestions of soldier-pictures that are different. Opportunities in this line have in my case been somewhat limited. I am at present living in a town which is in the line of march between two military camps. Usually, once a year we are favored with an over-night camp. Sometimes the "over" part is quite too small for photographic purposes. One who has dabbled in moonlight-photography or is proficient in the use of flashlight might see possibilities in the dark; but I need light and plenty of it when I make pictures. Some years ago I bought an exposure-meter. It was a very good investment. Aside from its expected proficiency in telling how much exposure to give with a certain lens-opening, it has proved to me many times that there was sufficient light when my eyes said there was not; and it has also decided that there wasn't light when my eyes thought there was. Consequently, when word came that the soldiers were due at six P.M. for an over-night camp and that they would start on their next day's march at six A.M. my camera, with the actinometer's consent, got busy at once.

The camp was a very busy place. Each man's work was cut out for him. Indeed, he was even too busy to know that I was trying to catch him in some pose that would fit into my picture.

The tents sprang up like mushrooms. A smell of wood-smoke and camp-cooking filled the air. Horses and mules went stumbling by on the way to the watering-place. The company blacksmith made the anvil ring as he got ready to shoe some weary horse. From among the tents came snatches of popular songs. Here and there were soldiers in various stages of cleaning up for the dance in the town-hall. Soap was in great demand, and any fellow who could cut hair had a steady job preparing his comrades for the event.

ALL UP FOR THE NIGHT — BEATRICE B. BELL

The greatest difficulty I had was in keeping the curious onlookers out of my pictures. Just as I would decide on what, to me, was to be a masterpiece, some body or bodies, would saunter over into the limelight, and that would be another picture added to my collecting of "almosts". I am not one of those efficient personages who can rearrange a whole landscape, suggest that this gentleman stand a little to the right, that another remove his hat, that the lady should move out into the sunlight, and the baby must listen for the birdie in the box, and get away with it to the extent of producing a picture over which anyone would go into raptures. Posing is entirely out of my line. So if I do not find ready made what I want or haven't the patience to wait for it, I either look for it somewhere else or get over wanting it.

Morning and evening light is likely to include many varieties. The long shadows and low lighting are especially good for genre-work, particularly when the subject is between the light and the camera. And long shadow-time and rest-time are almost synonymous. What could fit the throwing off of responsibilities, the stretching out of tired bodies, the relaxation from the day's marching, better than the soft glow of the setting sun. Even the homely task of washing dishes is glorified when looked at in the right light. But sunlight, the fickle lady, can't be depended upon to cheer the photographic eye on call. She was present at only one of the camps I visited. "Gray Days" would be a fit title for any of the subjects the other days brought me. Yet, one of these apparently hopeless days was a blessing in disguise. It was early morning, very early, in fact so early that most of the townspeople preferred to cuddle under the blankets for their last few minutes of Beauty Sleep. I blessed the Beauty Sleep. It got rid of most of the spectators. But the weather did not please me. There was a fog so heavy that it seemed to impede my progress. I breathed fog, I ate fog, I strained my eyes looking through it, my feet were wet ploughing through the wet grass, and my camera was heavy. I was saturated with fog and my disposition wasn't anything to brag about. The few people I met looked with condescending amusement at the



XUM

EARLY MORNING
THE WATERING-PLACE
BEATRICE B. BELL

DOING KITCHEN POLICE — BEATRICE B. BELL

camera. My disgust increased. By the time I reached the camp, I was ready to consign camera and people to some hot place. Suddenly through the fog loomed a soldier on horseback. Between us was a softening haze. Beyond was nothing. Silhouetted in dark gray against light gray. What a picture! I opened my camera with visions of salons floating through my brain. A last look before opening the shutter. There was nothing in sight but fog. My masterpiece had disappeared. Silently the apparition had floated through my little circle of visibility. Not even the creak of the saddle came back to give credence to my senses. I turned and followed the path taken by the horseman. It led to a little stream and there I captured "The Watering Place."

In soldier-pictures, the same as in much other photographic work, one is inclined to include too much. Simplicity of composition is the keynote to success. A single incident will hold the attention and tell the story. A soft-focus lens is a great help in softening details, and an anastigmat at full opening throws the subject into relief by diffusing the background. Knowing the possibilities and limitations of your camera is half the battle. How many times have people said to me, "You must have a wonderful lens in your camera." Of course, it would sound conceited to say, "It isn't the lens, but the skill of the person using it that counts," so I keep still. Naturally, I couldn't make good pictures with a poor lens; but an expensive lens wouldn't be any help unless I knew how to use it.

A tripod, of course, is necessary if one wishes to take time-exposures; but there are very few opportunities for time-exposures. I never attempted any, for there is so much to be crowded into the small amount of daylight that the camp is a bustle of activity. Bulb-exposures are often useful. Doubtless any of the soldiers would be glad to pose, especially if the photographer promised a picture; but as I have said, posing is an art in which I am not a great success. Perhaps I might add that aside from knowing the limitations of your camera, it also pays to know your own limitations. It at least saves you from much uncomfortable embarrassment.

A great deal of the pleasure derived from photography is the satisfaction experienced in capturing something unexpected. So even when conditions do not seem exactly favorable, remember that preparedness often reaps its own reward.

[We are sure that this article will serve to encourage our readers to make military photographs that are different. Many will attend the usual summer camps of military instruction for the Regular Army, National Guard, Organised Reserves, Reserve Officers' Training Corps and Citizens' Military Training Camps in many parts of the United States. Let us all make the most of the opportunity. EDITOR.]



XUM

# How to Use the Camera in Camp

E. H. BROWN

"Oh, come and go camping,
Go camping with me;
I'll show you a wonderful time.
No worry or care
Is ever found there;
Oh, come in, the water is fine."

THE chorus, gentlemen, of a sixteen-verse camping-song which commemorated a two-weeks camp, remembered as one of the best. The purpose of this sketch, however, is not to eulogise the joys of camping. Everyone knows the blistered hands, the sunburned neck, the "grub" shortage, the sharp stones in the bottom of the creek—and kindred pleasures. No need to advertise them. But, how are they recalled! By illusive memory only, or by definite, story-telling photographs?

Undoubtedly, every camper takes with him a camera of some sort. A camp without a camera would be like a frame without a picture. But, in looking over the results obtained by the average Kodaker when he returns from camp, you sometimes wonder why he bothered to take a camera along. There is that picture of John paddling a canoe, the devil bent for Timbuctoo; but John is looking into the camera, obviously having his picture "took". Then there is another which shows Harry pouring coffee on his bare foot, the while he stares at the camera. That photograph of Sam fishing would have made a fine genre; but, unfortunately, Sam had eyes for nothing but the little black box. Why? It would have been just as easy to catch John paddling when he was really going somewhere, Harry actually interested in his coffee pouring, and Sam while he was landing his fish. And the pictures, when developed and printed, would have been accurate, truthful records, and a pleasant surprise as well.

Many an amateur labors under the delusion that he must be as still as the pyramids when his picture is made, and only press-photographers have the mysterious power of stopping moving objects. With some types of equipment this is nearly true; but even in such a case, there is no excuse for the posed picture. Even the humble Brownie will make interesting pictures and will stop slow motion, if not too close. And whoever heard of fast motion in camp?

But suppose that the pictures are slightly blurred? Even with a defect like that, they are far more interesting than the stiff, self-conscious photographs that are commonly seen. This applies to any kind of pictures, of course; but is particularly true in the case of camping-pictures.

The trip, introduced by the pæan of joy at the head of this sketch, was made by canoe, and our albums contain a series of pictures which detail the trip from beginning to end, gleefully backed up by our camping-song. And this in spite of the fact that it rained nine days out of the fourteen. The point I wish to emphasise, however, is that each of the pictures tells some story of camp-life—not the ordinary posed pictures, but *acted* pictures, some consciously and others when the subjects were engrossed with their duties or activities about the camp.

There is one of Frenchy, for example, when the minnows started biting him. He had yelled for a piece of soap—a "hunk", I believe, he called it—and I came running with the Ivory and the camera. I told him if he would "pretty, please" he might have the soap. Just then the minnows got to him. The resultant picture would not qualify Frenchy for a beauty-show, but it does exemplify a phase of camp-life.

When Frenchy with a dipper of ice-cold spring water chased Jess *sans* raiment all over the field, the picture obtained, while slightly blurred, is highly satisfactory from a historical point of view, though hardly printable.

A two-weeks camp necessitates some wash lady work. The ribs of a canoe form the finest kind of washboard, as any good camper will tell you. A picture of this interesting method of laundry work became part of the photographic history of the trip.

Scenes which show the loading of the canoes, the landing-place, the fire with the industrious cookee preparing the mulligan or flipping a flapjack, the "gang" around the table at "chow time", Jack sound asleep in the tall grass while the others pitched the tents, Tom returning from the chase with a rabbit the size of his palm, and similar scenes form a highly-prized collection because, in the entire lot, there are but one or two posed pictures.

Some of them are underexposed—badly. And the films got damp because of the continual rain. The carbon paper rubbed and some of the pictures, therefore, have a mealy appearance, as if they had smallpox. Good, bad and indifferent; but they are true story-telling pictures and, as such, they recall the trip vividly and accurately, as no set of posed pictures could ever do, and are interesting to friends as well.



XUM

Of course, you need not confine yourself to camping-pictures. You may be able to obtain some first-class negatives that in the future may be worked up pictorially, and you should ever be on the lookout for suitable subjects. But the pictures which tell the story of camp-life are the main things.

Perhaps a few words on equipment is in order. Life in camp is rather strenuous, conditions are primitive, and the camera used should be able to withstand plenty of hard knocks or be a cheap instrument that will not overtax the pocketbook to replace in case of damage. It should be small, too. A large camera is not only expensive to operate, but is too unwieldy to carry around. The result is that it is never at hand when needed. The small camera, on the other hand, accompanies its owner wherever he goes. A 2¼ x 3¼ seems to me to be the ideal size. Contact prints are not too small, and good enlargements may be obtained, if needed. A lens which works at F/8 is fast enough for all ordinary conditions, and many difficult feats as well. All the pictures of our camping-trip were made with a 2¼ x 3¼ Ansco fitted with a rapid rectilinear lens.

Nearly everyone has an idea that he or she would be a wonderful actor, rivaling Mary Pickford or Rudolph Valentino. Tell them this is their opportunity and make them *act* the pictures you are unable to make unawares. And when you have developed the film and made the prints you'll have a record that you may take pride in showing to your friends, secure in the knowledge that they will not listlessly turn the pages of your album, with boredom plainly written upon their faces. Make them eager to see more of your pictures, because you have pictures of real interest.

# A Method to File Negatives

ROBERT T. STANLEY

THE average amateur keeps his prints in an album where he can find them with more or less ease; but when it comes to the negatives he has a more difficult time of it. They are usually kept in a big box or in the envelopes in which they were returned from the printers. When he wants one for an enlargement or another print, he has only the approximate date that the picture was made for a clew as to where to find it.

For several years I have been a camera-enthusiast and during all this time I have used a vest-pocket camera. I soon saw, as my negatives began to pile up, that I would be swamped if I did not find some system of filing them. The system I finally decided on, and which I have been using for four years, is very simple and easy to put into operation.

I first obtained a thousand envelopes 3½ x 2 inches. These are manila envelopes and are known to the trade as druggist's envelopes. On the envelopes I had printed spaces for the date, place, description and remarks. Later in one corner I placed the numbers of the envelopes.

I then built a filing-case, out of an old cigar box just large enough to receive the envelopes. The next thing was to make a set of alphabet cards to facilitate finding the envelopes when they were filed alphabetically.

This system worked very well while I was filing the negatives; but a year later when I was looking for a picture of a friend in a group, I discovered that it wasn't filed under his name and that I had forgotten who else was in the group, so that I had quite a search before I found the right negative. I decided that the proper remedy for this would be a cross indexing system—but how?

Finally, my brother made the suggestion that I use a card-index in conjunction with the envelope-system in which the negatives were all listed under every title that I could think of at the time of indexing. The envelopes were then filed numerically and the alphabetic index-cards replaced with numbered cards every fifty envelopes.

This system has worked beautifully; and, to-date, I have discovered no flaws in it. If a group-picture is to be filed, there is a card for each person in the group and, of course, each card refers to the same envelope. If, as usually is the case in an amateur's collection, there is more than one negative of a certain person, only one card need be filed and the various negatives can all be listed on the same card with a short description and the date after each. Virtually all pictures should be indexed under at least two different titles as there are always two ways of looking at a picture—and you will probably think of more than that when you are trying to find it. For instance, the pictures made on some particular trip should be filed under the name of the trip and also under the name of the subject.



XUM

As the system developed, I discovered that it wasn't always advantageous to file only one negative in an envelope. Quite often there would be two and sometimes as many as six negatives of the same subject, made at the same time and from only slightly different angles. These are all listed on the index-card, of course, and notes made on the envelope; and, if all the prints are placed in the album, the distinction can be easily made so that there is no danger of getting the negatives mixed, even if they are all filed in the same envelope.

This system is by no means limited to the V. P. negatives, as envelopes can be obtained to fit any negative. Then, too, it is not necessary to have the forms printed on the envelopes, although it is much handier and the additional cost is slight.

At first sight, this plan may sound as if it took a lot of time; but I can assure you from my personal experience that the time saved in finding the negatives you want after they are filed will more than balance the time spent in arranging the filing-system. Another good point is that the likelihood of losing valuable negatives is reduced to virtually nothing, unless, of course, the whole filing-cabinet is lost. And furthermore, if you are constituted as I am, you will have a good time working with anything connected with your favorite hobby—photography.

# Something about Sulphite

J. R. HALL

SULPHITE of sodium is a very important chemical in photography. And the important part of sulphite is its quality. Yet, because compared with the fine chemicals, sulphite is cheap, many photographers give little or no consideration to the sulphite they use. Sulphite of sodium, $Na_2SO_3$ is a compound of sodium, sulphur, and oxygen. One of many similar compounds. In its well-known crystal form, of which the formula is $Na_2SO_3\ 7H_2O$, it carries with it exactly its own weight of water. Thus, the crystallised form, all other things being equal, is only half as effective as the anhydrous or dry, considered weight for weight.

But the strength or quality of any sample of sulphite is by no means a constant. The following incident will show this. An enthusiastic friend of mine complained to his dealer about some developer refusing to work. It was an amidol-solution, made carefully with chemicals obtained from the dealer. After wasting some dozens of pieces of bromide paper, the enthusiast began to suspect the developer. The dealer opined that the amidol must have gone off, and replaced it from a fresh bottle. But this was only a preliminary to another bout of wasted time, light, and paper. The sufferer came to me.

I asked for remnants of the amidol and sulphite. The former looked all right, the latter was rather too small and clear looking, though those signs are by no means conclusive. Anyway, I tried it first. Now 1½ ounces of good sodium sulphite crystals, dissolved in a pint of cool water without shaking (aërating), will completely neutralise 1½ ounces of pure concentrated hydrochloric acid, producing sulphurous acid in so doing. This sulphurous acid is an excellent stop-bath; but that does not concern us at the moment.

Hydrochloric acid, added to a hypo-solution, rapidly precipitates sulphur, producing a distinct opalescence which is followed by a heavy cloudiness. Even with weak, cold solutions, this action does not need many minutes to become noticeable. I made up a pint of sulphurous acid mixture with some of the sulphite, and gave it ten minutes rest to allow the sulphite every opportunity. Then, I added some of this to some hypo-solution. The result, an almost instant milkiness. This was clear proof of free hydrochloric acid. Sulphurous acid preserves hypo, and had there been no hydrochloric acid left, the hypo would have kept clear for days, even in use.

No further proof was needed that the sample of sulphite was not of fair quality. It was, in fact, very poor indeed, and probably consisted of half its weight sulphite, and the other half sulphate, for sulphite easily oxidises to sulphate, upon which hydrochloric acid does not act.

The illustration shows, in the measure-glass, some hypo-solution treated with sulphurous acid, after standing three days; in the tumbler, some similar hypo to which a spot of hydrochloric acid was added. Photographed three minutes after adding the acid.

To determine the exact percentage purity of a sample of sulphite, a very careful estimation must be made. This requires a burette and a $\frac{N}{10}$ solution of iodine, *i.e.*, the standard

solution which contains 12.692 gms. per 1000 c.c. Half a gram of the sulphite is dissolved in 50 c.c. of boiled and cooled water. After adding some mucilage of starch, the iodine solution is run in from the burette until a very faint, but permanent blue appears. Crystal sodium sulphite of the best quality should consume 74.7 c.c.s of iodine solution for each gram that is used.

However, the above is a delicate operation, and for photographic purposes a comparison is easier and nearly as useful. If we have a sulphite that has given satisfaction, and there is the opportunity of buying another at half the price, iodine can be used to compare them. An easy way is to make up equal strength solutions of each with water from the same source. A convenient strength is one gram in 50 c.c.s. The weights must be carefully managed,—the two lots should be perfectly equal in weight—and the volumes of water exactly the same. For testing, some tincture of iodine as used by druggists, let down with its own volume of water, will serve. From each sample of sulphite in solution, an equal, but small volume is poured into a clean measure. Here again, the two must be exactly equal. Some starch-mucilage—made with arrowroot and hot water—is added to each, and iodine dropped in drop by drop, the drops being counted. The best sulphite will absorb more iodine before the blue coloration stays; but care is necessary not to avoid adding excess of iodine, and the dropping must be done very slowly. If one sample takes twenty drops, and the other ten, it will readily be seen that the difference in quality is serious. The former may not be just 100% purer; but for practical purposes it can be considered near it. When the difference seems negligible, a number of tests, taking the average of results, is more reliable than a single one.

FIGURE 1 J. R. HALL

Sulphite of soda is not exactly an expensive chemical; but sulphite of poor effectiveness may, indirectly, prove very expensive indeed.

PHOTOGRAPHY is an aid to the outside contributor. Illustrations always assist an article; sometimes they are sufficient to make an unsalable article salable. Many articles are capable of being illustrated by means of the camera, and almost any photographic pictures are capable of being "written round." For example, a series of pictures, with brief letterpress, under the title, "The Strand from Dark to Dusk," showing incidents of traffic, such as a horse down, etc., would be easily disposed of to an illustrated weekly; such photographs could be taken instantaneously on a bright day without any difficulty whatever.

E. A. BENNETT in "Journalism for Women."



XUM

# Practical Kinematography

HERBERT C. McKAY

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## Chapter VII—Straight Work (continued)

YOU are an artist. There is no question about this statement if you are successful. The professional who has won his spurs is proud to be called an artist. Far too many people associate a male artist with a character of despicable femininity. It is true that the artist is sensitive, he has to be so, he appreciates delicacy in any form; but those of my acquaintance are far from being the type vulgarly known as a "sis". Some of the most manly men I have ever known were artists. But I digress. To return to the preparation for the day's work.

The next step is to fill the magazines. As to the exact procedure I can offer little advice. It is presumed that most of my readers have practiced some amateur kinematography and thoroughly understand the technique of this work. To my new readers, I suggest that "Kinematography for the Amateur" be read before this series of articles.

The magazines should be cleaned as carefully as the camera proper. If the valves or throats are lined with velvet these should be brushed with a brush stiff enough to penetrate the nap. This will remove lint, dust and particles of film which might spot or scratch the film. It will also raise the nap of the velvet, making the light-trap more efficient. In this connection I will mention "sunning".

Under certain atmospheric conditions, the enamel, with which the interior of some magazines are painted, will give off chemical fumes which fog the film. This is more usually true of magazines which have been closed for some time. To obviate this danger, the magazines should be opened and exposed to direct sunlight at intervals of a month or so. An hour or so will suffice to freshen the interior and prevent such fog. Like treatment will also help magazines which are lined with felt, velvet, corduroy or other fabric, as the fabric in such magazines will absorb dampness at times. Any magazine is helped by sunning periodically and no danger is to be apprehended in such procedure.

When the magazines are filled they are returned to the case. In this matter of cases I decidedly prefer the combination style, that is a case which carries the camera, extra magazines and accessories. The fewer parcels you have to care for, the easier will be your work. You will always have the camera and tripod, which makes a minimum of two distinct packages. Then in studio-work you will often find a third case necessary for the effects and other accessories used in the highest class of work.

I have known news-men who fastened to the kiné-tripod a side support for a three and a quarter by four and a quarter or four by five reflecting or press focal plane camera to photograph stills. Many saleable shots may be made in this manner. I know one man, at least, who practically pays the operating expenses of his kiné-work by still sales. The veteran will oftimes snap a still with his left hand while cranking; but this is dangerous procedure as attention distracted from the motion-work as well as the absence of the steadying force of the left hand from the camera may ruin a motion-scene. However, it is good practice to carry a still camera on news and review work.

With cases open, pack the equipment. It is well to have a checking list, and pack the articles as they appear upon the list. In this manner, when the bottom of the list is reached you know that you have all of the required equipment. Nothing is more vexing than to travel miles to a location and arrive minus the crank or other indispensable part of your equipment. In professional production-work, such a mistake is unforgivable, and will result in a loss of reputation very difficult to live down. It is also a good procedure to set up as early as possible so that if any equipment is missing there will still be a chance to make a flying trip and obtain it.

When packing, make sure that each piece is in its allotted space and securely wrapped to prevent rattling about. A small bit of metal might scratch and mar the camera if loose in the case, even if no further damage were done. When the outfit is packed the next job is to go to the selected location.

When location is reached—and by location I mean the scene of action whether in travel, news, sport studio-work or whatnot—before removing the camera from the car, the first thing to do is to select the approximate angle. This is done by joining the tips of the thumbs with the fingers raised at right angle to the line of the joined thumbs. This makes three sides

"LEAVE THEM ALONE AND THEY'LL COME HOME WAGGING THEIR TAILS BEHIND THEM" — ELLIOTT HUGHES WENDELL

of a rectangle, which will roughly determine the boundaries of the frame. The distance at which this "frame" is held from the eye depends upon the length of your fingers. The distance will be about a foot; but practice will soon enable you to use this frame without conscious thought as to distance. As but an approximation is sought in this manner, considerable leeway is allowed.

When the angle is found, the next step is to set up. The tripod is set up near the spot at which the most favorable angle was found. By "near" I mean within a foot or so. The legs are extended until an angle of from 50° to 70° is embraced. Then the full weight of the body is brought to bear on the tripod to see that it is absolutely firm. If it is the camera is mounted.

The height of the tripod is a matter governed by circumstances. A low point of view will result in objects upon the screen appearing disproportionately tall, and a high viewpoint will dwarf objects photographed. This fact is made use of quite often in changing the apparent size and shape of objects. I can think of no better experiment than taking a reflecting-camera into the open and trying various scenes from viewpoints of varying height. If you do not possess a reflecting-camera, a finder made by cutting a rectangle of the proportions of 3 by 4 in cardboard and viewing scenes through it will be of service.

It would seem that the height of the average eye would be an ideal height for ordinary purposes; but, in fact, a point of view somewhat lower is better. From fifty to sixty inches is the most valuable range for everyday-purposes. Of course, there are often circumstances which force one to use extremely low or extremely high points of view. The latter is true in photographing events where a large crowd is expected to surround the kinematographer's station. Also in photographing an event where the action covers considerable depth the use of a "parallel" or platform about three or four feet high is of advantage, because the higher the point of view the broader the foreground and consequently the action may be spread over a greater depth than if the foreground and middle distance blended abruptly into the distance as is the case with a low point of view. Another point in setting up is the consideration of the angle and direction of the light. This should be the primary consideration in selecting the point of view; for proper lighting is vitally important.



XUM

When the camera is set up and threaded ready for action the exposure should be calculated. Now this is another point at which I desire to digress for a moment. There are today many veteran kinematographers in the studios who entered the field because it offered a livelihood. They entered while the game was young and took up kinematography without the slightest knowledge of the basic theory of photography. They learned by experiment and failure, but learn they did. There are photographers, kinematographers rather, in the large studios today who do not know the essential constituents of a photographic emulsion, who do not know the theory of the F/-system, who do not know a thing about orthochromatics and would not know a spectrograph if they saw one on the street. These men use anastigmat lenses, yet have not the faintest idea of what constitutes astigmatism. Yet they produce beautiful, exquisite film. They have learned by long experience. These men have earned our respect, that respect we owe to all sincere pioneers; yet, with all due respect we cannot agree that their method of learning kinematography is the better. Scientific training will produce a better kinematographer in a shorter time. Even at present, the man with ambitions to become a kinematographer is supposed to undertake odd jobs about a studio until he can get taken on regularly as assistant cameraman. Then for some years, about five usually, he carries the camera, holds the slate, keeps the exposure-record and so forth. Eventually, he takes on a sub-camera and finally blossoms forth a full-fledged cameraman. Did you notice that photographic experience or knowledge was conspicuous by its absence from his qualifications? Now this must change. Efficient business is founded upon an efficient personnel. The time is rapidly approaching when the studios will hire cameramen upon a basis of their knowledge rather than upon the time candidates have spent holding the slate.

Now what has all of this to do with exposure? Just this. The veteran has his exposures all tucked away in his brain—a result of trial-and-error experience. When he sees a newcomer using an exposure-meter his ridicule is loud and prolonged. Through his lack of scientific training, he does not realise that an exposure arrived at by scientific calculation will invariably be better than one based upon experience and human sense perception. Stick to your meter and the screen will tell the tale. In the largest studios the chiefs of the photographic staffs have long since read the handwriting upon the wall and have prepared themselves by study and observation. These men, acknowledged leaders in kinematography will tell you that they recognise fully the value of the exposure-meter and that when in the least doubt as to the correct exposure they resort to the meter.

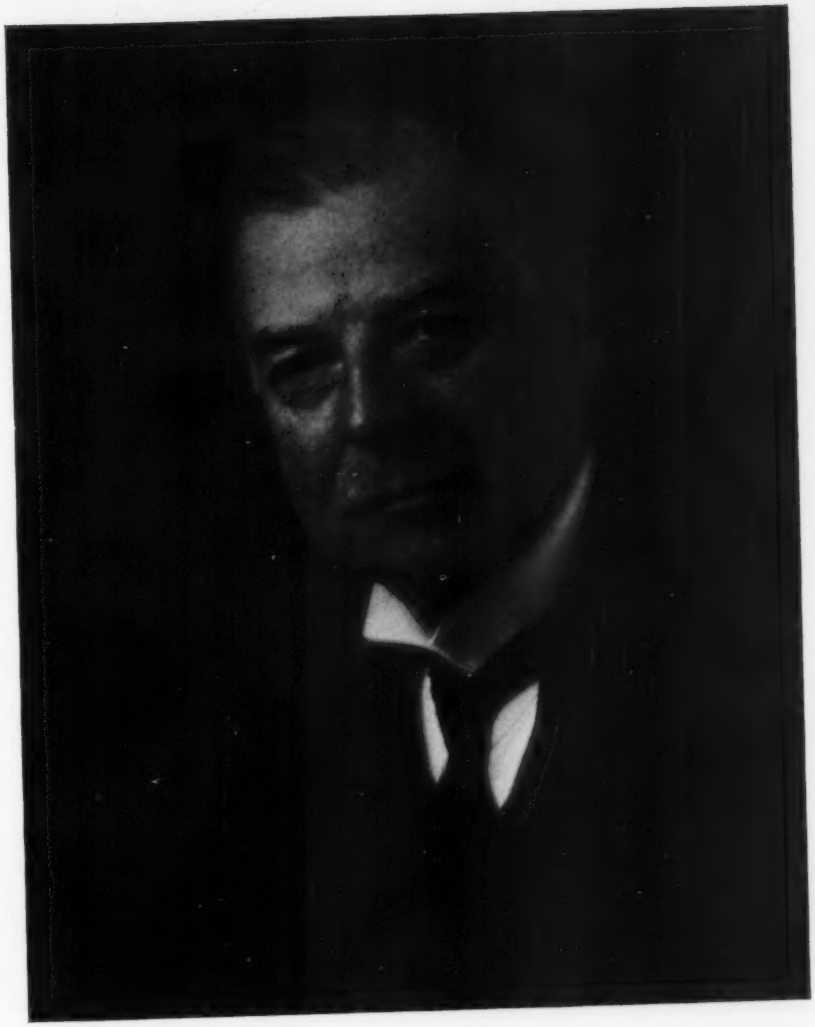
When you are all set, stand by until the action desired takes place. Do not film it all from start to finish, remember that two hundred feet of film will only run a trifle over three minutes. Try to select the high spots and shoot them only. As soon as you have made a scene, set the lens to two feet and make a crank-exposure of a large numeral such as can be cut from a large wall-calendar. You can thus identify your scenes perfectly yet dispense with the assistant and his slate. In studio-work, of course, the orthodox slate is used.

When the figure is photographed punch the film. Still better, crank once, open the camera and cut a triangular notch one third the depth of the film, close the camera and crank a foot. This identifies scenes beyond danger of being overlooked in the laboratory. When photographing individuals of note or of news-value, enter in your notebook their names from left to right. This information is invaluable to the news-editor and for your own later reference. When you have shot all of your material, pack up your instrument and go home.

The first thing to do is to get news-film in the mail. Then, the magazines are opened and dusted. If you expect to work within a day or so, fill your magazines, then if a hurry call comes, you will be prepared. Always have at least one filled magazine at hand for emergencies. Then clean the camera carefully. In short, follow out the instructions given at the first of this chapter. If you do this at night the next morning an examination will suffice so that the long job of cleaning will not delay you. Finally, pack the equipment and set it away in a clean, dry room.

[The interest in amateur kinematography seems to be on increase from the larger number of letters on the subject that we are receiving. Particular attention is being directed to the 16mm. cameras which are now on the market and others which are in process of development. As a result of this show of interest, we are planning to begin a series of articles on the 16mm. kinematographic cameras, how they are constructed and how they are used. We hope that these practical and interesting articles will serve our readers and help them to success in amateur motion-picture photography. The material is now in preparation and we hope to begin the series in an early issue. EDITOR.]

(*To be continued*)



DR. E. L'H. MCGINNIS
DR. T. W. KILMER

XUM

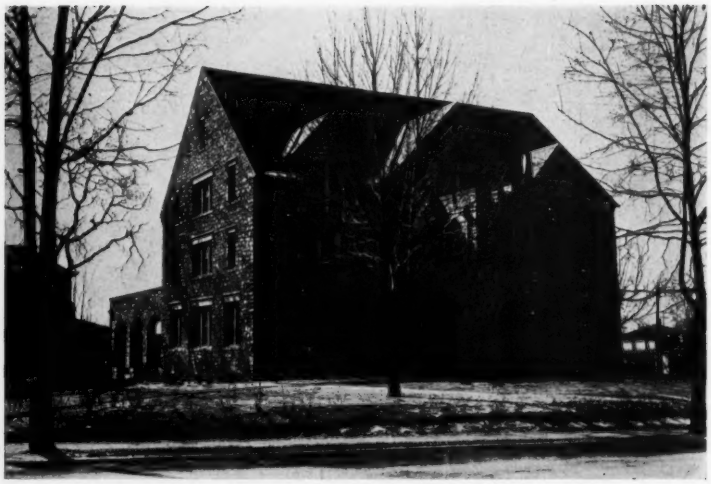


FIGURE 1 HILLARY GOODSELL BAILEY

# Photographer, Artist, or What?

HILLARY GOODSELL BAILEY

TO rate, is man's big business in the social order. If not with financial power, then with public acclaim, or both. It's the dream of the banker, the merchant, the politician, the society matron, the educator, the artist, and—softly, the photographer. And that's as it should be.

But does he—the photographer?

No. He doesn't. Sorry, that's the truth. Not nearly so much as he deserves. Not nearly so much as he thinks. So interested is he in the intricacies of his several processes and manipulations and so appreciative of his skill in obtaining results from them—for the mechanics and chemistry of photography require a craftsmanship which permits a rightful pride in accomplishment—that he over-emphasises the amount of appreciation he receives from the world. Too much of what he gets is only the fancy of his own imagination. For to the general public he is only "the picture-man", to the art-world a despicable imitator, to the college professor a grafter, to his fellow colleague a hated rival and an "amateur". All of which is too much and not as he is. He should and must command more respect. Rate higher. Be bigger stuff.

It all began wrong at the beginning. Photography should have been esthetic first, and mechanical second. Instead, the fascination of the mechanical and chemical eclipsed the esthetic until it was overlooked, if not forgotten. Which started photography wrong end first. True it has run an unusual course; so smoothly, in fact, that its professional passengers, accustomed to its motion, think that they are riding rightly. Even the definition in the dictionary is insufficient, for it merely mentions the mechanical and chemical phase. This conception is so thoroughly established that the profession thinks only in terms of cameras, plates, paper and chemicals. Artists with the same notion scoff and take it for granted that photography can only imitate, which is the lowest form of art—a thing to be despised and berated. Very grudgingly one author admitted that photography "only approaches artistic conditions when it is blurred, vague, and indefinite, as in so-called artistic photography, for then only can some amount of vitalising play be imagined to exist". Ruskin can be overlooked for classifying photography so impotently because of its infancy when he knew it. But our artists and critics of today display an ignorance which does not do them credit by their condemnations.

Art has three elements. First, *the idea* which

FIGURE 2 HILLARY GOODSELL BAILEY

includes the individuality or personality of the artists and is sometimes called the life, "dither", imaginative value, the feeling, vitalising element, etc. That is, if art is a language, the thing to be said. Second, the *subject matter*, the material to be represented—to the photographer, the thing before the camera. Or in other words, the symbols of the language to express the idea. And third, the method of expression; the *technique*, which to the painter is the skill of using canvas and paints, to the musician the skill of performing on a piano or organ or the like, and to the photographer his skill in manipulating chemicals, paper, and the like. Photography is at fault for neglecting the first two elements. Its failure to rate is resultant from a dearth of the imaginative and vitalising values of art, and a neglect of consideration of subject matter. "Snap" and try to get a picture by manipulation. That has been the motto of photography. Is it any wonder that it has failed to command sufficient respect? Before further progress can be made the photographer must acquaint himself with art. He has become skilled with his craft and technique. He must not only have an idea but know it, be able to select and arrange subject-matter to convey that idea, then he can use his photographic technique to present it.

Photography has limitations. But there is no reason that art cannot be produced by virtue of plates, chemicals, and paper as well as by paints and canvas.

In Greencastle, Indiana, the Phi Kappa Psi fraternity have a home of which they wanted a picture. A photographer was obtained who delivered a print similar to the one shown by Figure 1. A more inartistic mass can not be imagined. It looked like a jail—cold, barren, forbidding, and oppressive. And the fraternity were not satisfied. The photographer was an



XUM

adept technicist. He had perfectly focused through an anastigmat lens of great expense, perfectly exposed, developed and printed. So he blamed the architect, who really does deserve criticism. But the fraternity tried again with Figure 2 as the result.

Here we have just an intimate part of the whole, selected with a knowledge of all the laws of esthetic composition. With a brush full of cheer, the last lingering rays of a setting sun filtering through the trees paints highlights across the masonry. There is a breath of quiet romance and cherished memories. A suggestion of the mysteries that come with the shadows of night. There is the sinuous walk, the protecting archway, the charm of the flowers, the peaceful and quiet dignity of an attractive home. Vitalisation, there. Who cares how many stones the lens will pick out? It was sentiment the Phi Psi's wanted, and were willing to pay for; for the second picture cost four times that of the first, and was cheerfully paid.

# In the Cave-Country with a Camera

RUSSELL T. NEVILLE

THE tragic fate of my friend Floyd Collins has turned the attention of the world to the Cave-Country of the United States. It has been my good fortune to visit the Cave-Country of Kentucky several times, the last time being in July 1924, when we spent three days with Floyd Collins in his own very beautiful Crystal Cave. There are about ninety caves in this immediate vicinity. However, only a few of them are open to the public.

Mammoth Cave, of course, is one of the wonders of the world. Discovered about 1807, so the story goes, by one Hutchins, a hunter, who pursued a wounded bear through the underbrush on the side of the Knob and saw it disappear into the opening of this cave, the Mammoth Cave has had a long and interesting history. During the War of 1812, saltpeter was leached from the soil, found a short distance inside; and the old leaching-vats, wooden pipe-lines and piles of discarded peter-dirt are mute evidences, today, of that historic struggle. Some historians say that the War of 1812 could not have been won by America without the aid of the powder made from this saltpeter.

Mammoth Cave is on five distinct levels, the lowest being the site of Echo River. This river connects with Green River on the outside of the Cave, and when Green River is swollen by spring freshets, Echo River also rises and sometimes entirely fills its rocky boundaries, making the usual tourist-trip on this interesting stream an impossibility. Echo River is the home of the eyeless or blind fish (Amblyopsis speleus) and the white crawfish.

Another very beautiful cave nearby, has been discovered, developed and opened to the public within the last few years. It is Great Onyx Cave. One is taken down a flight of concrete steps right into one of the most beautiful rooms in this entire cave, and one of the finest we have ever seen in any cave, for that matter. Onyx Cave is extensive, very beautiful all the way and has many points of great interest. To get to the lower levels, one is permitted to enter a trap-door in the floor—a hole cut in the solid rock, and then down a long, twisting flight of steps to the bottom of a seemingly bottomless pit, where one finds a boat waiting to take passengers on a very short ride over a crystal clear pool. These steps one has just descended are a marvel of ingenuity and daring. Built along the sheer side of the rock-wall, in what is really a gigantic crevice in the rock, they compel one's admiration as an engineering feat. They were built by native Kentuckians who make no claim to being either builders or engineers.

All this material, as well as all building-material used in Mammoth Cave, must be carried in, for no animals or vehicles can be used. There is a small but comfortable hotel at Great Onyx Cave, and the scenery all about is rugged and beautiful.

About six miles from Mammoth Cave is Crystal Cave, owned by the lamented Floyd Collins and his father Lee. This cave is noted for its wonderful helictites, a formation similar to stalactites and stalagmites, except that the helictites are twisted and contorted into all sorts of grotesque shapes. Geologists say that this is the only known cavern where they are to be found. Stalactites and stalagmites are also found here in great beauty and profusion. There are acres of sparkling, glistening white gypsum-formations on the sides and ceilings of



XUM

THE BANANA-STALK

RUSSELL T. NEVILLE

LARGE GYPSUM-FLOWER

SOME HELICTITES RUSSELL T. NEVILLE

the passage-ways which make all sorts of curious, beautiful, and intricate patterns.

The going in all of these caves is difficult, notwithstanding the improvement-work done. Paths have been laid out and leveled off, rude stone-steps laid up the towering hills of rock over which one must climb; and, in some places, ladders have been constructed to take one up or down crevices and steep rock-walls which occasionally block the way. In spite of the rough walking, the beauty and majesty of the rooms and passage-ways, of the pits and domes so divert one's attention that one walks on and on, heedless of the distance.

It was our pleasure and privilege to make several flashlights in Crystal Cave, some of which are shown herewith. It is a difficult task to get a clear, distinct picture of some particular formation against a background of similar character. The gypsum-formations especially are difficult to photograph, because of their crystalline whiteness and lack of contrast.

Floyd Collins, a typical man of these parts, spent his life in cave-exploration. He was more at home underground, prowling through unknown and uncharted labyrinths, in Stygian darkness, than most of us are on the streets of a strange city. He was rather a tall man and slender. He wormed and inched his way through cracks and crevices, through small holes and "crawl-ways" absolutely fearlessly. His power to orientate himself bordered on the uncanny. It was his delight to explore not only his own wonderful cave, but others in that vicinity. Sand Cave where he finally lost his life, was simply a "ground-hog" hole, one of thousands in this region, and never was dignified by a name until it became famous as the place where he was caught by a cave-in. Floyd told some of his friends who went into this death-trap in an effort to rescue him, that he had just come up out of a pit eighty-five feet deep, and that further back was a cave rivalling in beauty anything he had ever seen. A loose rock barred his further passage, as he wormed his way upward, and he kicked it, thinking that he could dislodge it, and that it would drop back down from whence he came; but the jar caused a general collapse of the soft roof, and he was caught like a rat in a trap, and there he suffered the agonies and tortures of being buried alive. A most horrible death, but one he no doubt had often contemplated, and he accepted the gamble, unafraid, and lured ever onward by the new beauties his explorations opened up to him.

Colossal Cavern in this same neighborhood, is noted for its large rooms, pits and domes. Situated within its dark mysterious depths, is the great stalagmite, ninety feet high and called the Henry Clay. It is claimed to be the largest stalagmite known.

Old Salts Cave is one of the most interesting



XUM

GYPSUM-FLOWERS RUSSELL T. NEVILLE

caves we have ever had the pleasure to visit, although it is not open to the public. It is so called by reason of the immense deposits of practically pure Epsom Salts found in its winding passage-ways. This cave is the only one which shows signs of human occupancy. Although explored for many miles, hardy pioneer "cave-men" tell me that every place so far entered, shows signs of having housed a prehistoric people. We penetrated several miles into its rocky interior, and found remnants of fires, pieces of gourds used as domestic utensils, bits of cloth and other signs left by these interesting folk. Local tradition has it, that the American Indians shunned these caves and held them in superstitious awe. A human body, mummified by the chemical action of the soil in this cave, has been brought to light. Scientists who have examined it say that it is the body of a girl about sixteen years of age, who had red curly hair and a light complexion. She was not an Indian and not a Caucasian.

About the only life found in the caves is in the form of cave-crickets. These look like an immense grand-daddy-long-legs, slaty gray in color. They jump or hop several feet, if disturbed. Near the entrances, rat-tracks are sometimes found. Bats are quite at home in many of these caves. This Cave Country is about a hundred miles south of Louisville, Ky. and may be reached through that city by motor-roads.

We have visited them all. They are all beautiful and fascinating. After hours of sight-seeing, with an ever-changing vista just ahead, lighted by our lanterns as we make our slow progress and after marveling at the lofty domes and the seemingly bottomless pits, we come again into the sunlight, and the singing of the birds and the beauties of trees and flowers we see with a new and perhaps a keener realisation, the many beauties of nature so lavishly bestowed all about us. Then we realise, as never before, that some of the Great Architect's most beautiful handiwork is not on top of the earth but far beneath the surface, hidden from sunlight, and some of it only for eyes like Floyd Collins'.



XUM

# Questions and Answers in Darkroom-Procedure

ED. C. JERMAN

## Part IV

52. *Why should the time of rinsing be short?*

*Answer:* Because the developing-process continues during the rinsing time or until stopped by being placed in the fixing-solution.

53. *What is the proper time for fixing?*

*Answer:* Fixation is complete when the film is perfectly clear. The milky whiteness (apparent by transmitted or reflected light) should have completely disappeared.

54. *What is the required time for washing?*

*Answer:* Fifteen to thirty minutes.

55. *What is the required time for drying?*

*Answer:* This will depend entirely upon atmospheric conditions in your locality, especially humidity and temperature.

56. *Should the darkroom exclude all outside light?*

*Answer:* All outside light should be excluded, as even the light through a keyhole or nail-hole may fog the film.

57. *Which is the better light to use, red or green?*

*Answer:* The color is not so material. Quantity and quality of the illumination is most important.

58. *Where should the lights be placed in the dark room?*

*Answer:* An indirect ceiling-light to provide general illumination for loading and unloading of films, another light placed at the developer end of the tank for the trans-illumination of the film during development will usually suffice.

59. *How may a darkroom-light be tested for safety?*

*Answer:* By covering one-half of a film and exposing the other half for two minutes at a working-distance; develop and fix in the usual manner. If the exposed part remains clear, the darkroom-light may be considered safe; if fogged, the light should be subdued.

60. *What is a frequent cause of darkroom-light fog?*

*Answer:* The replacing of a burned-out lamp bulb with another bulb of a too high candle-power.

61. *How soon after a film is put into the fixing-solution may the white light be turned on?*

*Answer:* Immediately, provided the film is left in the solution.

62. *Does white light affect the solutions?*

*Answer:* No.

63. *Can an underexposed film be corrected by prolonged development?*

*Answer:* No. Prolonged development will only tend to give chemical fog, and will obliterate part of that detail which you already have.

64. *Can an overexposed film be corrected by shortening the time of development?*

*Answer:* Partly so. It is common practice to shorten the time of development. By so doing a better result may be obtained than by developing full time. The best result can only be obtained with a correct exposure.

65. *What is chemical fog and its causes?*

*Answer:* Chemical fog appears as a slight gray. It is caused by too long development at a given temperature. Age of the film also contributes to chemical fog.

66. *What is chemical stain and its causes?*

*Answer:* Chemical stain is any discoloration which appears on the film, other than black. It is caused by oxidised developer, too high developer temperature, insufficient rinsing, or an old, exhausted fixing-solution.

67. *What is light fog?*

*Answer:* It is a graying or darkening of the film caused by the film being exposed to light.

68. *What is X-ray fog?*

*Answer:* It is graying or darkening of the film caused by the film being exposed to X-rays.

69. *How can a film be tested for light or X-ray fog?*

*Answer:* By developing and fixing one of the suspected films without the usual X-ray exposure. If darkened to any degree, it is fogged.

70. *What are static marks?*

*Answer:* Static marks are fine, black, branch-like lines appearing on the clearer portions of the film, caused by the exposure of the emulsion to a static discharge. They may be produced during a part of the manufacturing process or at any later handling of the film before developing.

71. *What causes transparent spots on the film?*

*Answer:* They may be caused by any of the following: Kinking the film, spots on the intensifying screen, foreign matter of any kind on the film, air-bubbles in development, bubbles in the emulsion, storing films in a wet place, or by careless handling of the film while wet.

72. *What is abrasion and its cause?*

*Answer:* Abrasions are fine, black hair-lines ordinarily caused by friction on the emulsion. They are caused by any rubbing on the surface.

*Service Suggestions.*

# Photographic Chemistry for Beginners

CHAS. FRANCIS HAMILTON

AS a foreword let me say that this discussion is chiefly for the beginner in photography, though the more advanced worker who has not taken the time, or the trouble, to investigate the chemistry of the process whereby he achieves his pictorial successes, may also find it of interest.

There are few greater pleasures in photography, than watching—by the dim, red glow of the safe-light—the development of a special negative; or later to watch the building of the delicate values of the halftones in a print from that negative. And a knowledge of the chemical processes that make this possible, adds to the pleasure; and, at the same time, gives the amateur photographer more control over his pictorial process.

As there is little original in photographic chemistry, despite the volumes of printed matter issued each year which covers the researches along these lines, it will be understood that what follows is merely a selection of what the writer considers the more important of the fundamentals of the subject.

### The Emulsion

Since all modern photographic processes have as a basis the action of light on silver-salts, the halides, the first subject presented is the emulsion.

The silver-halides are the bromine, chlorine and iodine salts of silver and are obtained by precipitation of a solution of the potassium or sodium salts, with a solution of silver-nitrate. The sensitiveness of the silver-salts varies with the conditions of the emulsion-making; but the bromide salt is most sensitive, and accordingly is used for plates and fast papers, such as bromide. The chloride-salt is used in emulsions for the slower papers and, in some instances, for plate-making.

The halides are of such chemical construction that the action of a very little light will affect them, leaving them susceptible to reduction or "development", as it is usually called. In the earliest days of photography, the exposure was long enough for the light to darken the silver-salts; but as it was impossible to form images in the camera by such methods, the idea of allowing a primary action by the light to be developed by chemical action, was evolved and became the basis of modern development.

The emulsion-base is of gelatine. To make the emulsion, gelatine is dissolved in water, heated and to it is added the right amount of potassium bromide—or sodium chloride, if a chloride-emulsion is being made. After the bromide is dissolved and thoroughly diffused through the solution, a previously determined amount of silver-nitrate is added, which reacts with the potassium bromide to form silver-bromide, which salt is precipitated out of solution. But as the gelatine-mass is viscous, the precipitation cannot settle to the bottom; but is suspended throughout the gelatine, in form of microscopic crystals, evenly distributed. This emulsion is then flowed over the plate or film, and when it dries and hardens, becomes the well-known photographic emulsion. With plates, some silver-iodide is also added.

The papers, both bromide and chloride, are akin to the plates and films, as far as the make-up of the emulsion is concerned. Care must be exercised in adding the silver-nitrate, in order that no excess of silver remains; as in that case, the entire plate or film would fog instantly on being placed in the developer. With papers that darken under sunlight, such as printing-out papers, there is an excess of silver, which aids in printing. Of course, those papers are not developed, merely toned and fixed.

The speed of the emulsion depends on the length of heating and the degree of temperature; the longer the cooking and the higher the temperature, the faster the plate.

As the halides are sensitive to the violet and blue rays of the spectrum more than to the darker colors, it is necessary to add certain dyes to the emulsion which increase sensitiveness to green, yellow, and, in the instance of fully corrected plates, the red. Even then, the use of a filter to hold back the violet and blue is necessary to obtain truthful rendering of the other colors in monochrome.

Color-sensitising is a subject in itself and cannot be further treated in so short an article.

### Development and Developers

After the exposure of the silver-salts of the emulsion, the next operation is to develop or reduce these grains to metallic silver. This is achieved by immersion of the plate in a solution of a "reducing-agent". A true chemical reducer is not to be confused with the photographic operation of reducing the negative; it is quite a different thing.

The reducer is an oxidising-agent, and because of its ability to oxidise rapidly, has the power to free basic metals from their salts. In the photo-



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graphic instance it frees the bromine and leaves metallic silver in a fine deposit throughout the emulsion. Such reduction, of course, takes place only in proportion to the amount of silver-bromide affected by the light, during the moment of exposure.

As reducing-agents do not work satisfactorily when employed alone, the usual "developer" is composed of three or four chemicals. First, the reducer, such as pyro or elon; then a preservative, which is usually sodium sulphite, although sometimes the bisulphites or metabisulphites of sodium or potassium are used; third, the accelerator, which is an alkali, usually sodium carbonate, although potassium carbonate, sodium and potassium hydrates—caustic alkalis—and sodium borate are also used in various formulæ; and fourth, the restrainer, which is usually potassium bromide.

The duty of each is as follows: the reducer oxidises rapidly, thereby releasing the metallic silver from the salt; the preservative keeps the oxygen in the air and water from attacking the reducer by absorbing oxygen itself, and in this manner acts as a stabiliser of the developer; the accelerator, as its name implies, hastens or at least causes a continuation of oxidation on the part of the reducer, by reaction with the bromine released from the emulsion, causing formation of free oxygen, which in turn attacks the reducer, causing further oxidation. Thus a circle of reaction is established between the reducer and the silver-bromide and the accelerator. The duty of the restrainer is chiefly to prevent any fog, because of too rapid oxidation and also to avoid undue density in the highlights, especially before the lesser exposed parts of the negative can develop. The bromine released from the emulsion reacts with the accelerator to free oxygen, also forms more restrainer; thus it can be seen that after long use the developer contains so much bromide—restrainer—and has so little accelerator left, that it is useless; and, in instances where one tries to use it, stained and ruined negatives are the result.

Control of the development is somewhat in the hands of the photographer, by modification of the accelerator. An example of extreme modification and control is explained by Mr. E. M. Barker in PHOTO-ERA MAGAZINE, October 1921, page 174. Such knowledge is of value in isolated cases; but juggling of developers is no longer recommended in the "best circles", as it is considered much better to be able to expose correctly and develop along standard lines, than to depend for success upon some method of chemical sleight-of-hand. Also such methods are only really applicable in instances of known over-exposure; for in case of underexposure there is no remedy; to expose correctly is best, always.

### Reducing-Agents

The various reducing-agents have different characteristics, this probably accounting for the large number of them and the apparent popularity of each.

Pyro, the old reliable, and possibly the most popular, develops the highlights and the shadows at the same time, and by the time the denser portion of the negative is completely developed, the thinner portions—the shadows—will have sufficient detail. Of course, this is in case of proper exposure. Pyro also imparts a yellow oxidation-stain to the negative, which, although it makes the negative look dirty, gives excellent printing-quality. It is properly known as pyro-gallol and is obtained from gallic acid, a product of gall-nuts, imported from China.

Elon (or any other metol) is the sulphate of mono-methyl-para-amido-phenol and is a coal-tar product. It causes the image to flash up all at once in the negative; but builds up contrast slowly. For this reason it is usually used with hydroquinon, another reducer, which is obtained from benzine. Hydroquinon develops slowly; but with great contrast, and the combination of the two reducing-agents is very satisfactory and forms the basis for the many M. Q. developers.

Kodelon is paramidophenol hydrochloride, a derivative of coal-tar. It works well without hydroquinon and with caustic soda as an accelerator, forms the base for many concentrated liquid developers sold today, such as Rodinal, Azol, etc. It is also useful as a hot-weather developer, as explained in PHOTO-ERA MAGAZINE, June 1922, page 300.

Amidol is diamidophenol hydrochloride, and is one developing-agent that works without an alkali. With sulphite of soda it forms an excellent developer for papers or plates. It has been little appreciated in the past as a negative developer; but recent formulæ submitted by various manufacturers which give its user a wide scope, have probably enhanced its popularity. It is also an excellent developer for temperatures over 75° F and is described in the article mentioned just above. Amidol is sold under that name, also Dianol, and Acrol, the latter being an Eastman product.

Glycin is famous as a stand-developer, keeps long, is the one developer that will not absorb oxygen from the air or any oxygen that may be dissolved in the water of the solution, and is absolutely stainless. It has been considered a slow-working developer; but in practice that is not so, according to the writer's experience.



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AT THE SHRINE OF BUDDHA — E. L. THOMPSON

HONORABLE MENTION—TABLE-TOP PHOTOGRAPHY

Neol, a comparatively new developer, introduced by Hauff of Germany, is supposed to have great corrective qualities in instances of great contrast or overexposure. An example of its ability in presence of contrast is shown in PHOTO-ERA MAGAZINE, February 1924, on page 89, with a short explanation of the working-method on page 109 same number.

All the developers mentioned are used with plates or papers, in different proportions, except pyro, which has a tendency to stain the paper, as it does the negative.

The cycle of action of the components of a developing-solution is the same for papers as for plates. The restrainers are used in greater quantity for papers, and in this manner the warmth of tone of the resultant print is under control of the worker.

### Fixation

The third subject is that of fixation. Upon completion of development of the film a creamy appearance is noted. That is the unreduced residue of silver-bromide in the emulsion; and, in order to have a printable negative, and to prevent this unexposed bromide from being reduced by light-action, it is necessary to remove it from the emulsion.

With papers this unreduced silver is present, though invisible owing to the opacity of the paper-support. Removal of the unreduced salt from the emulsion is accomplished by placing the film in a solution of sodium thiosulphite, or "hypo" as it is commonly known.

Hypo dissolves the silver-bromide by combining with it to form a complex salt, a silver-sodium thiosulphite. This salt is readily soluble in presence of excess of hypo; but not in plain water. For this reason it is necessary always to have a fairly fresh and not overworked hypo-solution. For, in cases where the hypo becomes exhausted, there is not enough free hypo to dissolve this salt, and it remains in the film to decompose and stain the emulsion, as is also described later in treating the washing of the emulsion.

As this complex silver-sodium thiosulphite is invisible, it has always been recommended in the past to allow the negative to remain in hypo twice as long as it took for the creamy appearance of the emulsion to be removed. In this manner it was certain that all the traces would be removed by the hypo.

But recent experiments along this line by Messrs. Lumière and Seyewetz have indicated that the negative is fully fixed by the time the



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visible silver-bromide is dissolved, and that the various complex reactions of fixation take place simultaneously, in fresh hypo-solutions, thereby shortening the time of immersion.

This is actually true and is practical only when the hypo is absolutely fresh, for after each fixation, there is left a certain amount of silver-bromide in the hypo-solution and after a short time a considerable quantity, sufficient to retard the process of fixation, is present. Lumière's experiments indicated that the safety limit was two per cent.; in other words, when about three hundred grains of silver-bromide had been dissolved in a quart of hypo, the solution would no longer fix properly and attempts to use it would result in stained negatives.

It is impossible, of course, for the individual to know how much silver-bromide is dissolved, so a safe margin is established by the emulsion-makers, who advise that no more than five or six 5 x 7 plates be fixed in 100 cc (3½ oz.) of 20 per cent. hypo solution. This figures out that about 1600 square inches of negative-material may be safely fixed in a quart of 20 per cent. hypo. After use the rate of fixation becomes slower; yet, if sufficient time is given, it is safe.

Hypo is usually used in solutions ranging in strength from 15 to 30 per cent. The most common formulæ in the United States recommend 25 per cent. solutions, *i.e.* 8 ounces of hypo to one quart of solution.

Hypo is no longer used in plain solution—there are some exceptions of course—but with a hardener and an acid salt or solution, these being used to keep the gelatine-emulsion from absorbing too much water and swelling abnormally and to stop the action of the developer at once, when the plate is put in the fixer.

As hypo decomposes into plain sodium sulphite and sulphur when an acid is added to a solution, it is necessary to balance the acid carefully—the hardener and the usual preservative, that compose the acid-hardener addition to the hypo-solution. The most common acid-hardener is composed of sodium sulphite, acetic acid and potassium alum. The presence of the sulphite prevents or offsets the tendency of the acid to decompose the hypo.

Many formulæ recommend use of the acid sulphites such as sodium bisulphite or potassium metabisulphite, which decompose in solution, probably, to form a weak acid, sulphurous acid, and sodium or potassium sulphite, which acts as preservative.

Potassium alum is more often recommended as a hardening-agent, but chrome alum, though not really an alum, is much more efficient. One of the best formulæ the writer has ever used was described by Prof. E. J. Wall in PHOTO-ERA MAGAZINE, March 1916, pages 120–125 and is composed of a 30 per cent. hypo-solution, with addition of 233 gr. chrome alum and 1½ oz. sodium bisulphite lye solution—about ½ oz. dry sodium bisulphite—to 54 oz. of the above mentioned hypo-solution. It kept long, fixed rapidly and was efficacious as a hardener.

However, any hypo-formula recommended by a plate-maker should be satisfactory for his plates and the amateur need not hesitate as to what formula to adopt.

One word of warning, do not use hypo to point of exhaustion as it is cheap, much more so than a half-dozen ruined plates, and one should test the solution occasionally; and, when it is found that it takes rather a long time to completely fix the negative, throw it away and make up a fresh solution.

### Washing

The last step in photography is washing the negative or print, and though usually skimmed over, it is well to call attention to the importance of this step. Washing the emulsion in running water for a half hour, during which time, each plate, film or piece of paper is moving about freely and in contact continually with a fresh supply of water, will satisfactorily eliminate the hypo.

Where running water is not available, a series of rinsings or soakings in trays or pans will do. About twelve rinsings, in which each film or paper is handled, and the water constantly in motion, followed by carefully draining each film, emptying out the contaminated water and filling with fresh, or better yet transfering to a fresh tray of water after the draining operation, will also ensure hypo-free emulsions.

Hypo dissolves out of the emulsion at the ratio of one-half the amount, every two minutes under above conditions. It may be seen from this table, that after twelve changes, there is not sufficient quantity of hypo left to damage the most prized negative.

| | | | |
|---|---|---|---|
| After | 2 min. | | 1/2 hypo left. |
| " | 4 " | | 1/4 " " |
| " | 6 " | | 1/8 " " |
| " | 8 " | | 1/16 " " |
| " | 10 " | | 1/32 " " |
| " | 12 " | | 1/64 " " |
| " | 14 " | | 1/128 " " |
| " | 16 " | | 1/256 " " |
| " | 18 " | | 1/512 " " |
| " | 20 " | | 1/1024 " " |
| " | 22 " | | 1/2048 " " |
| " | 24 " | | 1/4096 " " |

Therefore, one can consider that after twelve

SAMPLES OF THE CHINA CLOSET — ALFONS WEBER

HONORABLE MENTION—TABLE-TOP PHOTOGRAPHY

washings of two minutes each, each in fresh water, and with films carefully drained after each washing, there will be no hypo to decompose and stain the negatives.

The reason hypo which is left in the film or print, discolors it, is that hypo has a great affinity for water and will absorb moisture out of the air. After a time, the action of the other materials in the emulsion, plus the tendency of the hypo to disintegrate, causes the hypo to change from the hyposulphite of soda to plain sulphite of soda and sulphur. It is the sulphur that discolors the film, and it cannot be removed.

Use of chemical hypo-eliminators, so-called, very likely changes the hypo into another salt of unknown quality, which may or may not dissolve as rapidly as the hypo itself. For that reason water is still the best eliminator.

### Toning

Toning is an after-process whereby the color and tone of the print is altered. The most common method of toning is the familiar sepia-toning, whereby the metallic silver in the print is converted into silver sulphide, which is probably the most stable of all silver-salts and is unaffected by atmospheric conditions of the most unusual type. In the tropical countries, where many kinds of prints will fade and discolor, the properly toned sepia remains the same.

The method of toning commonly employed is known as hypo-alum toning. As previously mentioned hypo has a tendency to decompose in presence of an acid salt, and potassium alum having a slight acid reaction, is used with hypo to bring about that change. A print immersed in such a solution, as recommended by paper-makers, gradually turns sepia, as the sulphur that is thrown down from the hypo solution attaches itself to the grains of silver, forming silver-sulphide. Hypo-alum can be used hot—about 120 F—or cold, and improves with age.

A second sepia process is the bleaching and re-developing method. The image is bleached with a solution of potassium ferricyanide and potassium bromide, forming invisible bromide, which when treated with a weak solution of sodium sulphide, a very volatile salt, immediately forms the brown silver sulphide.

Other methods, used by more advanced workers employ dyes and more complex salts to obtain other tones. The pleasing tone, blue, is obtained by bleaching in potassium ferricyanide and ammonium bromide and toning in ferric chloride and hydrochloric acid, the addition of the iron salt forming the blue tone. Other tones are obtainable by addition of other metallic salts. This is an interesting field of photography and very pleasing variations from the usual black-and-white image can be secured.



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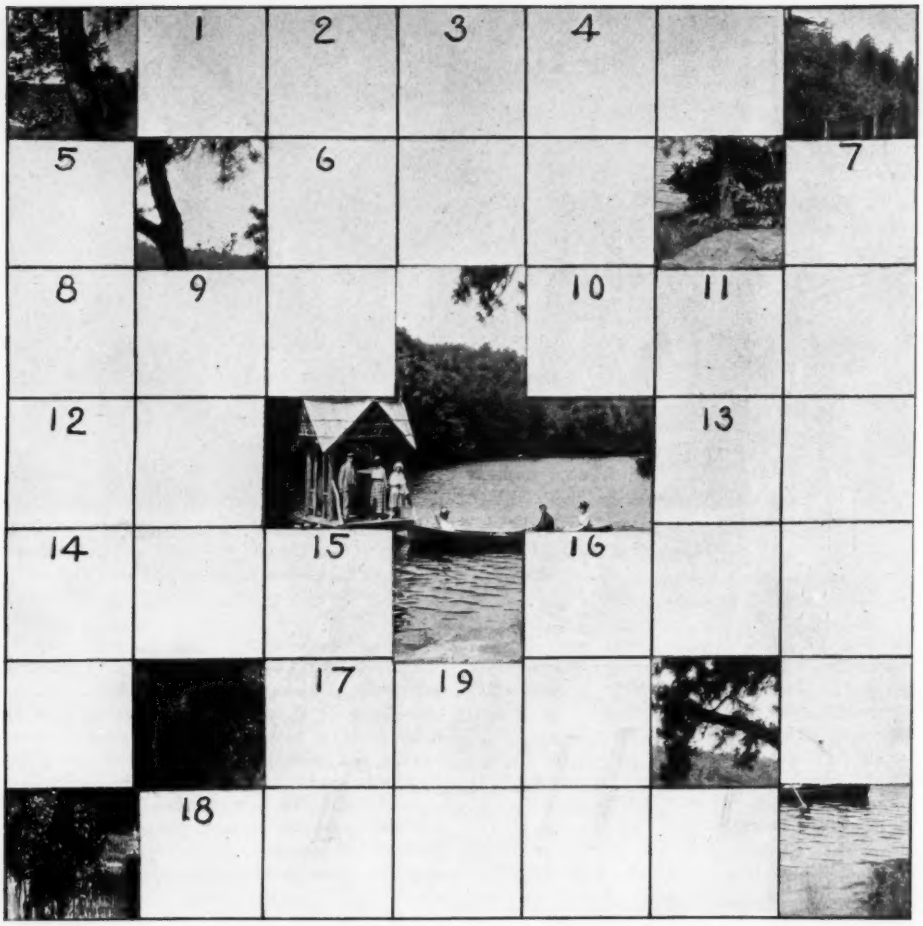


**PHOTOGRAPHIC CROSSWORD PUZZLE** **WILLIAM LUDLUM**

*Horizontal* (across)

*1 A popular photographic abbreviation*
*6 A period of time*
*8 Some people put it in when and where it isn't wanted*
*10 A photographic plate*
*12 Girl's name, abbreviated*
*13 Going——!*
*14 Telegraph messenger's insignia*
*16 Fuss*
*17 Peculiar*
*18 The name that put Rochester on the map*

*Vertical* (down)

*2 Not him*
*3 Either*
*4 Small boy*
*5 Photography couldn't get along without 'em*
*7 The greatest of "fixers," plural*
*9 Support*
*11 Boy's nickname*
*15 Also*
*16 Girl's name*
*19 Doctor of Divinity*

# EDITORIAL

## Photographing Pageants

A WELL-KNOWN New England newspaper had for the subject of its pictorial Christmas supplement an original photograph of the Annunciation. It was a feature of the biblical pageant arranged as part of the Christmas celebration of a prominent church in Greater Boston. The director was a lady who has a penchant for preparing spectacles of a religious character. Those who witnessed the pageant spoke in terms of praise of the beauty and effectiveness of the costumes. However, there were also not a few among the spectators who were inclined to be critical, and regretted to discover a certain lack of accuracy in some of the details and a number of incongruities which characterise the average historical or biblical pageant—unless produced under the personal direction of an artist-connoisseur. Of course, the customary photographs of the pageant were made by an eminently competent professional, and as records they were pronounced satisfactory. The photograph of the Annunciation, however—specially grouped and arranged by the lady who had organised the pageant, and published as the art-feature of the Christmas-edition of the newspaper alluded to—was seen by thousands of persons, many of whom, while admiring the spirit which inspired the theme, disapproved its several obviously inartistic features. The severest criticism was directed at the arrangement of the hands of the angel who was represented as *left-handed!* That is to say—the right hand clasped a bunch of white lilies, while the left hand was raised high in the act of making the prophetic announcement. This glaring incongruity, also the open twentieth century book in the Virgin's lap, and the ugly circular disc (halo) fastened to the back of her head sadly marred what otherwise might have been a commendable achievement. What a pity that in the process of reproduction the original photograph was not reversed, when the hands at least, would have assumed their correct place in the picture. But like the compositor, the reproducer is supposed to follow copy, unless otherwise instructed. Still, we remember to have seen in some book on art an inconsistent picture of the Annunciation. The angel was making an upward gesture with its left hand while holding a flower in its right! It is possible that the picture was reversed while being reproduced.

Our acquaintance with the religious pictures of the art-galleries of Europe does not extend to left-handed personages, human or celestial. Among those whom we remember as performing an important act with the right hand, are Christ blessing little children; the angel, holding a palm-branch in the left hand, the right hand being upraised, appearing before the Virgin, in Raphael's Annunciation, in the Vatican; the Angel, similarly engaged, in pictures of the Annunciation by Melozzo da Forli, Andrea del Sarto, Ferrari, Pollajuolo, Titian, Botticelli, Murillo, Dürer, Van Eyck and other old masters —no left-handed angels in any of these! Pope Sixtus is holding up his right hand in adoration, in the Sistine Madonna (Dresden). Everybody is familiar with the Gleaners, by Millet—several peasant women gathering stray grain with their right hands. Not one of the numerous angels by Fra Angelico, nor those painted by other artists, plays upon a stringed instrument with its left hand. Art is not well served when those who prepare biblical, historical or allegorical groups pose the models with the hands incorrectly placed. Also, there may be professional photographers who, when asked to photograph a pageant, or a group, may not notice any existing left-handed positions—the result of individual peculiarity or casual occurrence, if not so suggested by the director of the pageant. It may be that a well-informed and carefully observant photographer can avert incongruities that might eventually prove embarrassing to those who prepared the pageant or group.

The study of the history of costumes, from the time of the ancient Egyptians, Greeks and Romans down to the present, is exceedingly interesting and instructive. Nearly every comprehensive encyclopædia contains colored plates which illustrate correctly the various costumes of all peoples and periods, and most public libraries contain finely illustrated books on this subject. It is clearly to the photographer's advantage to possess ready and correct knowledge on any subject that may assist him in his business; and an intimate acquaintance with so popular a one as historical or religious pageants should appeal to him forcibly as being excellent subject-material for his professional skill.



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# ADVANCED COMPETITION

**Closing the last day of every month**
**Address all prints to PHOTO-ERA MAGAZINE, Advanced Competition**
**Wolfeboro, New Hampshire, U.S.A.**

## Prizes

*First Prize:* Value $10.00.
*Second Prize:* Value $5.00.
*Third Prize:* Value $3.00.

*Honorable Mention:* (*a*) Those who win an Honorable Mention Award and are *not regular subscribers* will receive PHOTO-ERA MAGAZINE for six months with the compliments of the Publisher.

(*b*) Those who win an Honorable Mention Award and are *already subscribers* will receive a credit of $1.00 toward the purchase of any standard photographic textbook. This credit to be used within thirty days of receipt in the U.S.A., and within ninety days overseas.

Prizes may be chosen by the winners, and will be awarded in photographic materials sold by any dealer or manufacturer who advertises in PHOTO-ERA MAGAZINE, or in books. If preferred, the winner of a first prize may have a solid silver cup, suitably engraved.

No Prize or Honorable Mention pictures are sold, exchanged or the halftone-plates sold without permission, in writing, from the maker of the print. Proceeds of all sales, *excepting halftones*, go to the maker of the picture.

All competition-pictures not returned are used to make up the PHOTO-ERA PICTURE EXHIBIT which is sent to schools, libraries, museums, camera clubs and to responsible organisations for exhibition-purposes, *free of cost*.

## Rules

1. This competition is free and open to photographers of ability and in good standing—amateur or professional.
2. Not more than two subjects may be entered, but they must represent, throughout, the personal, unaided work of competitors. Subjects which have appeared in other publications are not eligible, nor may duplicate prints be sold, or entered into competitions elsewhere, before PHOTO-ERA MAGAZINE awards are announced.
3. Prints on rough or linen-finish surface, and sepias, are not suitable for reproduction, and should be accompanied by smooth prints having the same gradations and detail. Prints may be mounted or unmounted.
4. Each print must bear the maker's name and address, the title of the picture, and the name and month of competition, and should be accompanied by a letter, *sent separately*, giving full particulars of date, light, plate or film, make, type and focus of lens, stop used, exposure, developer, and printing-process. Enclose return-postage. Data-blanks sent at request.
5. Prints receiving prizes or Honorable Mention become the property of PHOTO-ERA MAGAZINE, unless for special reasons. This does not prevent the photographer from disposing of other prints from such negatives *after* he shall have received official recognition.
6. Unsuccessful prints will be returned only when return-postage at the rate of one cent for each two ounces is sent with data. Criticism at request.
7. Prints should be carefully packed between two layers of cellular board so cut that the corrugations run at right-angles to each other.
8. Competitors who have won three first prizes within a twelve-month become ineligible to compete for prizes in this competition for two years thereafter.

## Awards—Advanced Competition
## Subject—Table-Top Photography
## Closed April 30, 1925.

*First Prize:* L. J. Creegan.
*Second Prize:* Y. Morinaga.
*Third Prize:* Walter Rutherford.

*Honorable Mention:* S. H. Gottscho; Burton Slade, Jr.; Leo A. Reinke; J. Herbert Saunders; Alfons Weber; Herbert J. Harper; H. L. Thompson; Edward D. Mudge.

## Subjects for Competition—1925

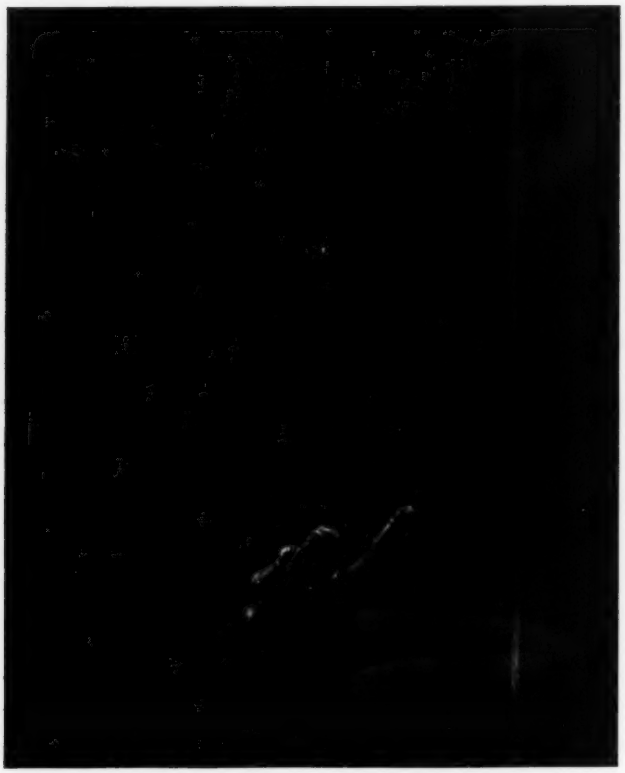
"My Home." Closes January 31.
"Miscellaneous." Closes February 28.
"Indoor-Genres." Closes March 31.
"Table-Top Photography." Closes April 30.
"Artificial Light Photographs." Closes May 31.
"Miscellaneous." Closes June 30.
"Front-Cover Illustrations." Closes July 31.
"Real Sunrise and Sunset Pictures." August 31.
"Wild and Cultivated Trees." Closes September 30.
"Miscellaneous." Closes October 31.
"Lakes, Rivers and Brooks." Closes November 30.
"Interesting People and Places." Closes Dec. 31.

**Photo-Era Prize-Cup**

THE SPANISH GALLEON

L. J. CREEGAN

FIRST PRIZE—TABLE-TOP PHOTOGRAPHY



THE AWAKENING — Y. MORINAGA

SECOND PRIZE—TABLE-TOP PHOTOGRAPHY

## Advanced Competition

THE top of a table is a convenient and necessary thing around the house. In a photographic contest it supports a variety of objects, from pseudo-interiors to art-gum nudes. "The Spanish Galleon", page 35, wins admiration by its excellent technique, good composition and imaginative qualities. A tale of old buccaneer-days is suggested by the old sea-chest, flintlock pistol and ancient chart. The artist did well to assemble such a telling group.

Data: Made with Ica camera, 3¼ x 4¼; Carl Zeiss F/4.5 lens of 5¼-inch focus, at F/16; exposed 2 minutes to light of one 400 Watt lamp. Five-times screen used. Panchromatic film; metol-hydro developer; enlarged on P. M. C. No. 8.

"The Awakening", this page, is an original bit and well illustrates the idea of spacing and spotting. The little figure might be in a dungeon, invoking heaven to release him from durance vile.

Data: Made at night by the light of a Kodascope with 56 Watt lamp, used as a spotlight. R. B. Graflex camera, 4 x 5; B. & L. Tessar, 8½-inch, at F/8; exposure 10 seconds on Par speed cut film, no screen. Elon-hydro-pyro developer; print on Vitava Rapid Black J. developing-paper.

"The Suppliant", page 37, is technically well done and decorative, but lacks a point of interest, as the flower-branches are shooting off at all angles. They kill the idea the artist had in mind when he named it. The suppliant is the thing least apparent to the observer.

Data: Daylight from small window; Eastman View Camera No. 2; Verito lens; 8¾-inch focus; exposed 20 seconds at F/5.6, on Wratten Panchromatic Plate; pyro-soda developer; enlarged on Velour Black.

"The Print 'Hanging' Committee", page 38. A good enough group of its kind, and then again possibly not so "kind". Will they hang the prints or hang the photographers' reputations?

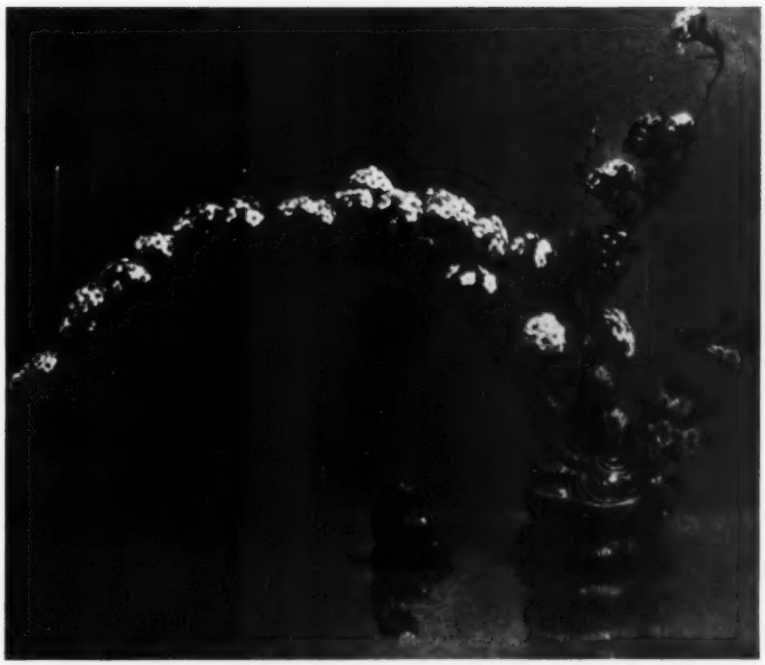
Data: Seneca View Camera, 5 x 7, Series II Velostigmat, 8¼-inch. Four seconds' exposure at F/6.3, on Eastman Super Speed film; Metol-Hydro developer; Vitava Etching Brown K.

This was an Honorable Mention print in a former competition.

E. H. WASHBURN.

Good ware easily finds a buyer.—*Plautus.*

Deliberate before you begin, then execute with vigor.—*Sallust.*



THE SUPPLIANT — WALTER RUTHERFORD

THIRD PRIZE—TABLE-TOP PHOTOGRAPHY

## London Portrait-Studios

DEAR MR. BEARDSLEY: My trip from the North culminated in a two-week visit to London. The week originally allotted was extended to a longer stay because of the irresistible appeal of innumerable attractions. I was fortunate to be able to attend a session and a lecture at the annual congress of the Professional Photographers' Association of Great Britain, an account of which may be a feature of our London Letter by the Cadbys. This much, however, I will say, *viz.*, our American state-conventions could emulate with profit the character of these annual gatherings and their picture-exhibits. I was able to procure a few of the conspicuously meritorious prints. They will be available for publication in PHOTO-ERA MAGAZINE shortly.

London has her "Photographers' Row" in New Bond Street. But many of these portrait-studios (except Richard Speaight) offer free sittings, which really prove unprofitable except to the sitters, who accept and use these gift-pictures, and then cease to patronise the donors!

The studios of the master photographers are not all on one street, but are widely scattered, the famous Angus Basil, for instance, being situated in Tottenham Court Row—some distance from New Bond Street.

A visit to several of the leading portrait-studios was a revelation to me. I was impressed as much with the strikingly individual appearance of the studios—the approach, the reception-room and the studio proper of each—as with the artistic output. In fitting up his or her place of activity, each studio-proprietor seems to have been influenced by the quaint old things with which this country is teeming. The entrance to the reception-room, also to the work-room and to the studio of one establishment—that of Dorothy Wilding, the leading woman-portraitist, in London, for instance— consists of plain, dark-stained double doors. Instead of a door-knob, there are two one-inch panels (about 6 x 3 inches) placed, one each, near the parting of the double-door. To open and enter, one has to push the lower part of the right-hand one to one side. The idea is simple and unique.

Mr. Marcus Adams' place was unlike that of any other. He specialises in children's portraits, *i.e.*, he photographs *no adults*, except, occasionally, the little ones in conjunction with the mother, and even then, he seeks to give dominance to the former. His "camera-room" is a marvel. Its approach is a glass-screen which is divided into small colored sections each representing an animal, a toy, or something pertaining to child-life. All about, and inside, are toys of every description; and the moment a little one beholds this vision, it is wild with delight, and is completely under the spell of this fairyland and its magician, Marcus Adams, whose artistic genius is expressed in pictures of delightful originality and captivating beauty. I believe that Marcus Adams is the only photographer in the world who confines his work exclusively to children, and who also finds it eminently remunerative.

Richard Speaight, another master-photographer, has his studio in New Bond Street, amidst its famous



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THE PRINT "HANGING" COMMITTEE HERBERT J. HARPER

shops. He enjoys the patronage of the *élite*, and positively will make no free sittings—the bane of the profession in London. One enters his reception-room through a very long and narrow corridor, each side of which is filled with framed examples of his work. The receptionist enjoys the use of a spacious and very high room with an open stairway leading to the work-rooms. The place is unlike any other in the city.

It is the same with Angus Basil, whose patrons are everybody, but obviously of the most select. His camera-room, where the sittings are made, rejoices in heavy, black masses—similar to the character of his portraits, and the accessories are odd and of sombre hue. The artist himself—a tall man of stern and serious mien—gave me the impression of great reserve; but he soon revealed himself as a gentleman of charming qualities. He works entirely with the aid of arc-light and a very old portrait-lens (Petzval type) made ages ago in Philadelphia. Hence the fine, atmospheric quality in his work. As we parted—it was after five o'clock—he received, as a sitter, a blond, curly-headed little girl of divine beauty, accompanied by her mother. I noticed that the necessary *entente cordiale* between the towering artist and the baby was very quickly established, and that there could be no doubt as to the happy result of the sitting.

Bertram Park, the distinguished landscape-specialist, makes his headquarters in Marcus Adams' studio. Like the other master-photographers, he is quiet and reserved; but his refined personality and sunny disposition are quickly observed at the fitting time. Like F. J. Mortimer, the peerless marine-photographer, Mr. Park is in the enviable position to ask and to receive heavy fees for commissions. Consequently, he visits Southern France and Spain every year in response to requests to photograph the rarely beautiful scenery of those far-off countries. To meet these sterling artists in photography is a privilege which I appreciate fully. I only wish that there were more of that type in the United States than there are at present.

WILFRED A. FRENCH.

LONDON, May 22, 1925.

### The Liberty Statue

APROPOS of a much-discussed topic, I was pleased to receive from a well-known pictorialist a photographic postcard of the Liberty Statue, New York Harbor, on which was the hand-written title, "Liberty Lighting the World". This is the way the famous statue was originally named. The title, "Liberty Enlightening the World", although much used, is incorrect.

W. A. F.

## SUBJECT FOR NEXT COMPETITION

# ADVANCED WORKERS

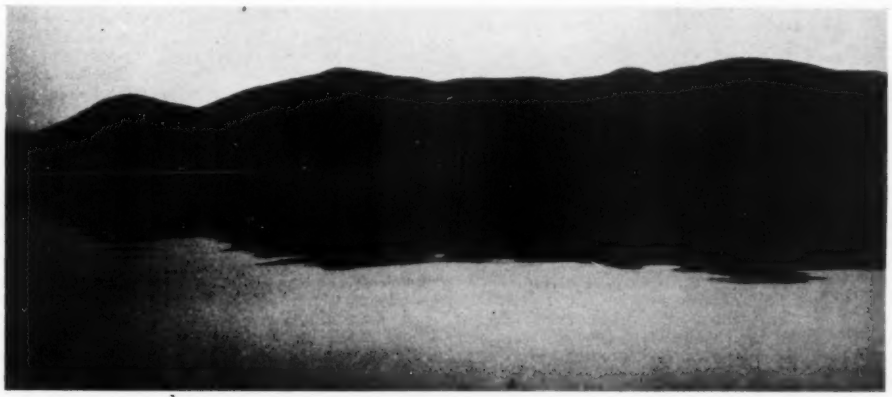
### Advanced Competition—Real Sunrise and Sunset Pictures
### Closes August 31, 1925

WHEN this competition was suggested, there was some question in my mind with regard to how many of our readers would get up early enough in the morning to make a genuine sunrise picture. I was reminded of the remark purported to have been made by a man who was sentenced to be hanged at sunrise. When he was officially notified, he simply shrugged his shoulders and said, "I don't get up that early in the morning." Therefore, some of my readers may be of a similar mind, and real sunrise pictures ought not to be expected. On the other hand, there are those who welcome every opportunity to tell how early they get up in the morning, how many miles they have walked before breakfast and how stupid it must be to lie in bed until seven o'clock, when half the day is gone. We have all met these good people. It now remains to be seen how many will produce real sunrise pictures for this competition to prove that they are early risers.

As for sunset pictures, there should be no great difficulty for all to participate. Very few of us go to bed before sunset. As to whether the early morning or the late afternoon is the more beautiful pictorially, I shall not attempt an answer. To my mind, each has a type of beauty or effect peculiar to itself. I would suggest that my readers decide this point for themselves and that they try to convince others by the pictures they have made, rather than by word of mouth, as to which is the best time of day.

Yes, I have seen many a sunrise from lofty peaks in Switzerland, from ships at sea, from a quiet farm in New England and across a mountain-lake; but I am frank to say that I have seen many more sunsets. However, the sunrises that I have seen were so wonderful that I doubt that any sunset could surpass them. There is something about the early morning freshness which is lacking at the close of day. To portray this early morning beauty is no small task; yet, what a delight, if one succeeds.

The close of day requires technical and artistic skill to catch, even with the modern rapid lenses and shutters. To me, the twilight has a tremendous appeal, and the picture on this page is, at best, lacking in that quality which tells the story convincingly. It is not included here as an outstanding example of pictorial prowess; but rather as a suggestion to those who may improve upon it when they have a similar opportunity during the vacation-season. Whether or not a twilight scene may be included as a sunset, I will not say; but I venture the hint that an exceptionally good twilight picture will not be dealt with harshly by the jury.



TWILIGHT-REFLECTIONS — A. H. BEARDSLEY

The subject of this competition is new for our readers and some may feel that it is beyond them. Let me assure those of faint heart that the technical and artistic requirements are no greater than those which have been necessary for previous competitions. But how to make these pictures? Well, if I were to offer suggestions, the pleasure of experimenting would be gone. Let me say that a little reading, a little thought and a little consultation with a good exposure-meter will open the way to success and a great deal of pleasure.

A. H. BEARDSLEY.



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# BEGINNERS' COMPETITION

**Closing the last day of every month**
**Address all prints to PHOTO-ERA MAGAZINE, Beginners' Competition**
**Wolfeboro, New Hampshire, U.S.A.**

## Prizes

*First Prize:* Value $5.00.
*Second Prize:* Value $2.00.

*Honorable Mention:* (*a*) Those who win an Honorable Mention Award and are *not regular subscribers* will receive PHOTO-ERA MAGAZINE for six months with the compliments of the Publisher.

(*b*) Those who win an Honorable Mention Award and are *already subscribers* will receive a credit of $1.00 toward the purchase of any standard photographic textbook. This credit to be used within thirty days of receipt in the U.S.A., and within ninety days overseas.

Prizes, chosen by the winner, will be awarded in photo-materials, sold by any dealer or manufacturer who advertises in PHOTO-ERA MAGAZINE, or in books.

No Prize or Honorable Mention pictures are sold, exchanged or the halftone-plates sold without permission, in writing, from the maker of the print. Proceeds of all sales, *excepting halftones*, go to the maker of the picture.

## Rules

1. This competition is open only to beginners of limited experience with practical camera-activity, and whose work submitted here is without any practical help from friend or professional expert.

2. Workers are eligible so long as they have not won a first prize in this competition. Winners of the first prize automatically drop out permanently, but may enter prints in the Advanced Class at any time.

3. Prints eligible are contact-prints and enlargements up to and including 8 x 10 inches.

4. Prints representing no more than *two* different subjects, for any one competition, and printed in any medium except blue-print, may be entered. Prints may be mounted or unmounted, as desired. Subjects which have appeared in other publications are not eligible, nor may duplicate prints be sold, or entered in competitions elsewhere, before PHOTO-ERA MAGAZINE awards are announced.

5. Prints on rough or linen-finish surface, and sepias, are not suitable for reproduction, and should be accompanied by smooth prints having the same gradations and detail.

6. Each print entered must bear the maker's name and address, the title of the picture, and the name and month of competition, and should be accompanied by a letter, *sent separately*, giving full particulars of date, light, plate or film, make, type and focus of lens, stop used, exposure, developer and printing-process. Enclose return-postage in this letter. Data-blanks sent at request. Criticism at request.

7. Prints receiving prizes or Honorable Mention become the property of PHOTO-ERA MAGAZINE, unless for special reasons. This does not prevent the photographer from disposing of other prints from such negatives *after* he has received official recognition.

8. Unsuccessful prints will be returned only when return-postage at the rate of one cent for each two ounces or fraction is sent with data.

9. Prints should be carefully packed between two layers of cellular board so cut that the corrugations run at right-angles to each other.

## Awards—Beginners' Competition
## Subject—Miscellaneous
## Closed April 30, 1925

*First Prize:* R. Morita.
*Second Prize:* Hakon Haug.

*Honorable Mention:* Paul L. Miller; Stanton G. Long; Moe R. Cheskis; Loyd Curbow; James Bell.

## This Matter of Vacation-Photography

USUALLY the beginner makes his photographic début during his vacation-days. It is his first actual contact with practical photographic problems; and how he solves them will have an important bearing on his permanent interest in photography. Whatever may be said to the contrary, we all take greater interest in doing something successfully. We all like to obtain results—to accomplish that which we set out to do. If the beginner's purpose is to make worth-while pictures, he should make every effort to attain this objective. To be sure, he will have failures. Weather-conditions will thwart him and his inexperience may lead him to attempt the impossible. However, if the purpose of his vacation-photography is to do the best work possible, he is headed in the right direction.

The average "button-pusher" or snapshooter—and there are thousands of him—seems to care not at all that his pictures are out of focus, underexposed, poorly composed and pictorially worthless. He appears to be well pleased that there is anything at all to be made out on the negative or print. Many of us worked up through this class of camera-owners, and it required some time, thought and study to find ourselves in our true position. As soon as we realised that we did not merit the name of amateur photographer, we began to open our eyes and to understand the reason that our interest in photography was on the wane and that we obtained little pleasure or satisfaction in showing the results of our work to others.

Vacation-photography should not be considered of little importance, by beginner or pictorialist. Is it not rather the great opportunity of the year? Is it not the one time when there is leisure to make pictures and when all nature calls to the lover of the beautiful? Yet, behold the pictures which are usually made—pictures which have little permanent value and reflect no credit on the maker. Of course, on a camping-trip we must have a picture of the "crowd" in all sorts of groups, there must be the tents or camp, the campfire, beach and canoes; but why cannot these be photographed attractively and be technically well done? By so doing, nothing is lost and everything is gained. What if the group is composed of campers in old clothes—unshaven and unshorn—the composition is just as important as though they were all in full evening-dress. It should not be necessary for me to point out the exceptional opportunities there are for really beautiful pictures, even on a rough camping-trip. By all means make a few pictures of the "crowd", the tent, the pots and pans, the big fish and the canoe; but plan to include the beauty of the forest, the quiet stream, the glorious sunset, the pond-lilies and the pine-clad hills.



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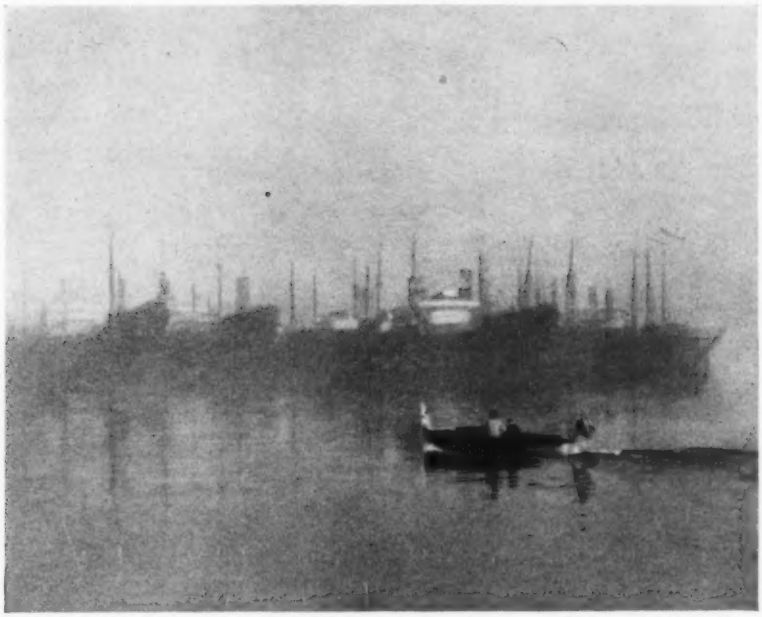

HAZY LIGHT — R. MORITA

FIRST PRIZE—BEGINNERS' COMPETITION

Again, if the vacation-days be spent in more formal surroundings, there is still ample opportunity to feature the beautiful in landscape gardening, flowers, architecture and artificial lake. Then, too, at the large resorts, many interesting events will occur which offer the beginner the practice of making worth-while groups of notable people. In short, let me emphasise the value of looking for the subject which will live and always be of interest and pleasure. It is well in selecting a subject to say to oneself, "Is this the type of picture I could view with admiration if it were made by some one else?" It will help greatly to cultivate the ability to see with impartial eyes.

There is one point that I should like to make clear at this time. Vacation-photography should not be looked upon as permitting carelessness or a disregard for the rules which make good photography possible. Instead of being a time to let down, it should be a time of greater effort. For example, let us suppose that the beginner has planned a trip to Quebec or to the Pacific Coast. It is his first, and may be his last, opportunity to go. To be sure, it is a vacation-trip; but would he not be very foolish to make his picture-making a hit-or-miss effort instead of putting his very best into it? Rather, let him be careless or slipshod when he is at home, if he must waste time, money and material. However, I am persuaded that most of my readers are sincerely eager to make good pictures all the time. True, they have their failures and disappointments; but they keep right on trying very hard and soon begin to reap the reward of honest effort. Let this year mark a lessening of snapshooting and a greater increase in worth-while vacation-photography.

A. H. Beardsley.

## Beginners' Competition

The first prize picture in this month's Beginners' Competition, "Hazy Light", on this page, depicts an atmospheric condition often seen at early morning before the sun burns off the mist. Without the mist or haze to soften the uncompromising line of black-hulled steamships, this would have been just an ordinary snapshot. Here, however, there is just enough mystery introduced to give the imagination free play as to what they are, whence they came and whither going. Their masts and reflections of them serve to break up the skyline and water. The little motor-boat is well placed, but a little too much to right, which can be helped by judicious trimming; about ½-inch from left. Then about an inch off the top to eliminate uninteresting empty space and balance the picture, and possibly a trifle from bottom.

Data: Graflex Camera 3¼ x 4¼; Verito lens; exposure 1/70 second at F/4 on Eastman Film Pack; enlarged on Portrait Bromide Paper.

"Winter Day", page 42, is a good example of linear perspective. We think horse and sleigh about in the right place, although a few feet nearer the camera would make it larger and a better center of interest. The focus is a bit too indefinite or soft for this class of subject. The contrast qualities, however, are fine and show correct exposure, developing and printing. No data. It may be of interest to add that this picture arrived from Molde, Norway, and that the maker is only eighteen years of age. Furthermore, we are now receiving entries from young people in many parts of the world, and we welcome them heartily; for with them lies the future of photography.

E. H. Washburn.



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WINTER-DAY HAKON HAUG

SECOND PRIZE—BEGINNERS' COMPETITION

## The Case for Permanence

We fear that the overwhelming popularity of development-papers for the production of photographic portraits is leading photographers to overlook the necessity, in certain circumstances, of providing a degree of permanence considerably greater than any silver-paper affords. It is by no means uncommon for a photographer to be asked to supply a portrait which is to be hung in, say, a municipal chamber or the board room of a great company, where it is destined to remain for a great many years. For such purposes as this, it should surely be a point of honor with the maker of the portrait to supply a print which can be guaranteed to remain unaltered for at least fifty years. The most ardent protagonist of development-papers will hesitate to say that any print on a silver-emulsion paper will be in its original perfect condition at the end of such period of time. A print fulfilling this obvious requirement needs to be either a platinum or a carbon; and it cannot be too widely thought among photographers that no other is suitable for the purpose. Price, as a rule, is a minor consideration in circumstances such as these, and in answer to the objection that the making of platinum or carbon prints is a branch of work no longer done in many studio-establishments, there is the fact that prints and enlargements of first-rate quality in these media are very readily obtainable from two firms.

## Tarnished Bromides

One of the little jobs which every now and again is brought to a photographer's studio is the restoration of a bromide print or enlargement which has become tarnished with age, or rather by exposure to the air of rooms containing minute proportions of the fumes from gas-burners or closed-combustion stoves. Any print on development paper, however perfectly it may have been made, has a tendency to deterioration from this cause, and sometimes presents a very weather-beaten appearance, the tarnish taking the form of an iridescent bloom. But the effect is altogether superficial; the film of tarnish can be readily removed by rubbing with ordinary clean india-rubber. The use of rubber is rather a slow process if the print is of any considerable size, and a much more effective and rapid method is to employ a mildly abrasive preparation, such as the "Frictol" paste made by the Vanguard Manufacturing Company. A little of this, used on a pad of soft old cambric, will restore a tarnished print to its original appearance with a very few minutes' gentle rubbing. The restoration process may be carried a step further by giving the print a final rub with one or other of the lustre-giving or encaustic pastes. So restored, a print usually is thought by the customer to have been subjected to a process which is marvelous in its results.

*The British Journal.*

# OUR CONTRIBUTING CRITICS

THE STRAY CAT — RALPH F. RHODES

THE PICTURE CRITICISED THIS MONTH

***Whoever sends the best criticism (not over 200 words) before the last day of the current month, will receive from us a three-month subscription to*** PHOTO-ERA MAGAZINE.

***The winning criticism, in our opinion, is the first one printed below. Criticism should be helpful and courteous.***

THERE are many commendable features about the print entitled "The Stray Cat". Care has been taken in focusing, and the exposure is well timed. Moreover, the effort is one of simplicity and unity. "But," you may say, "inasmuch as our attention is first drawn to the highlights, which in this case is the child, is not the title absurdly inharmonious with the spirit of the print?"

Not in my opinion. I will admit that the eye first falls upon the child. Yet, to me, the print *is* in harmony with the title, despite the seeming incongruity. The gaze of the child is so intently directed upon the homeless creature that the observer involuntarily looks upon the stray cat as the center of attraction. This is not said to the disparagement of the, indeed, charming baby; but in the picture we are led to feel as the child undoubtedly does—that the wandering animal is extremely interesting. The child's concentration of interest merely emphasises the presence of the visitor and, to me, completely justifies the title.

If you think the result would be more pleasing without the child, just cover up the right half of the print. It is immediately evident that the picture would be robbed of the cheery appeal it now possesses. Incidentally, Mr. Rhodes has caught a happy study in expression. The child is entirely oblivious of the presence of the camera and has the mien of childish delight.

The most regrettable feature, I believe, has been the inclusion of too much uninteresting foreground, which is practically devoid of detail.

ARTHUR L. MARBLE.

I LIKE the picture "The Stray Cat", as it illustrates a kindly interest in one of our dumb friends which apparently has been left to its own resources by some moving householders.

To support the title, the little girl should be tempting the animal at a short distance holding the plate. The cat, being stray, would then be hesitant and frightened-looking. The cat in the picture appears domesticated and a title, "Feeding Time", seems to be more appropriate.

An improvement would be a new camera-location eliminating the window, which attracts too much interest, then having a new background of creepers, trimming the print a trifle top and bottom. The little girl's expression is exceptionally pleasing.

JAMES BELL.



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THE ROAD TO SPRINGVALE — CHAS. A. PIERCE

YOUR CRITICISM IS INVITED

NOTWITHSTANDING its inability to arouse any considerable amount of enthusiasm from the standpoint of human interest or of pictorial endeavor, Mr. Rhodes' effort must be considered in the light of an achievement. The apparent simplicity of the subject is deceptive. Posing an animal is a task for an experienced worker, and the successful depiction of child-life demands the resources of an expert. When these two feats are harmoniously combined, we must acknowledge the result.

As we read the story, a stray cat in search for food wandered on the premises. The artist, ever alert for picture-material, saw his opportunity; he brought a pan of food and his camera, and, sure of childhood's interest—a mere joy in the wonder of things—placed the baby to give additional interest to the theme.

With an eye to tonal effect, he secured suitable backgrounds for his subjects of interest, and was highly favored in the illumination. And so, a pleasing record of a passing event was obtained.

However, the child, intended as an accessory feature, draws and holds our interest because of its rendition in a higher key, and for the reason that emotional expression is more attractive than mere animal gratification. Bisecting gives us two pictures, each complete, but of unequal interest.

Suggestively, we should advise a reconstruction, placing a cat, more attractive in color—photographically speaking—nearly in front of the child, which should be clad in garments more subdued in tone, and securing a background free of architectural details.

The author's technical ability is worthy of higher ideals, which would broaden his vision, and thus he would find material equal to his skill.

J. W. ADAIR.

PHOTOGRAPHIC quality excellent. The attitude of the cat is satisfactory and the spontaneous pose and expression of the child most pleasing. Notwithstanding, however, the commendable character of these important elements, the details of the picture do not come together quite as they should to make an entirely satisfactory ensemble, in saying which I appreciate the fact that with subjects of the type we are considering, it is often very difficult if not impossible to get all the parts in ideal relation with one another. In this instance, the composition would be stronger if the child were a little nearer the cat. This would do away with the tendency to a division of interest between the two, now felt; besides giving the extra space that is needed between the child and the right-hand margin. The background, while contrasting nicely with the child's head and costume, might, with advantage, be made a trifle lighter in the vicinity of the cat. The cellar-window, though without doubt an additional detail, is not an improvement to the composition.

Although a matter apart from that of pictorial or technical merit, it seems as though the story-telling interest might have been increased by a more suggestive title, such as "Dinner for One" or "An Unexpected Treat".

WILLIAM S. DAVIS.

## Take Your Time, Please

Attention, amateurs! Are not twenty-five good pictures preferable to forty which are no credit to the maker and which require explanations and excuses to account for their poor workmanship? In most cases, there is no need to hurry the making of a vacation-picture. Usually it is a landscape, a marine, an individual or a group that is to be photographed. Being on pleasure bent and free of business-cares, most members of the group can well afford the few extra moments to allow the beginner to make sure that all are included and that no heads, feet or arms are cut off in the picture through poor focusing or composition. When the fall and winter evenings arrive, and the vacation-days become a thing of the past, let the beginner take pride and pleasure in the photographic work which is contained in the photo-album before him. Let the snapshooter make excuses.

# OUR ILLUSTRATIONS

WILFRED A. FRENCH

"The Spirit of West Point", our cover and frontispiece, is a fine piece of technical work. The composition, although very formal, is pleasing, and the young soldiers typify the spirit of defense, rather than offense, which is the fixed military policy of this nation. "Don't fire unless fired upon", was the command given the early patriots at Lexington on April 19, one hundred and fifty years ago, and those words appear to have prophesied the American attitude of mind, for all the years intervening, until the present. This picture is very appropriate to adorn the cover for July, especially so since President Coolidge has recommended July 4 to be National Defense Day. By it we are reminded of the spirit which made the original "glorious Fourth". These young soldiers appear duly prepared to do their duty, should necessity arise again.

The erect bearing of the true "West-Pointer" has been famous for many years and is well displayed here. A lighting was chosen which brings out the fine architectural features of the building into bold relief, suggesting strength and solidity. The lights and darks are well centralised in and about the portal.

Data: Made in fall of 1910 and shows Cadet Captain Lockwood, Class of 1911, in foreground. Time, 9.30 A.M., Eastman View Camera; Goerz Celor, Series B. No. 7 lens, 14-inch focus; Standard Orthonon plate used, on account of extremes of light and shade. Full exposure, and long complete development gave a negative suited to fairly soft printing-paper, Azo F, No. 2 being used.

The pictures of big game, reproduced on pages 5 and 6 by courtesy of the Century Company, display ocular proof of the thrill which comes to the big-game camera-hunter who has the nerve to do it. A false move may cause the speedy death of the hunter. Such superb examples as are here shown, although of chief interest to naturalists, can not fail to arouse the admiration of the camerist, who can readily appreciate the great difficulties to be overcome, which eliminated any possibility to make pictorial work. It may transpire, at some future period, when civilisation shall have covered even the now-termed remote parts of the earth, that all the generations then living will have to remind them of the mammoth creatures which exist in our day, will be such records as these, and museum specimens.

"Dawn and on the Move", page 8, is decidedly "different", as Miss Bell intended. The line of army wagons wending its way out of our sight, leaves us a sort of "au revoir" feeling. The white wagon-tops form a strong leading line which claims our interest. Data in article.

In "All Up for the Night", page 9, we feel we have caught up with the departing column on previous page, and they have prepared for shelter from the inclemency of the weather, if there should be any. The foreground tree relieves what would otherwise be a monotonous print. Data in article.

"Early Morning", page 10, finds things in preparation for another jaunt, even before the fog burns off, and we know the dew is heavy on that grassy foreground, as the dense fog blows between us and the trees whose tops just show. Interest centers in the group on the bridge. Data in article.

"The Watering-Place", page 10, is another phase of the work attending the making ready for the day. The wise soldier knows the value of sufficient water in his horses' stomachs.

"Doing Kitchen Police", page 11, is an interesting little outdoor genre. It tells us about the means employed to prepare food for the hungry soldiers with keen, open-air appetites. Apparently a little visitor has come to camp, and the cook is explaining just how it is done. Data in article.

The subject of "Sulphite" still continues to be of interest. The print called Fig. 1, on page 15, serves to give point to Mr. Hall's article on the chemistry of sulphite.

"Leave Them Alone and They'll Come Home Wagging Their Tails Behind Them", page 17, is another proof of Mr. Wendell's skill with his camera, if such were needed. The lights and darks are well massed, and the highlight on the sheep's backs attracts and holds attention. We can well imagine their little stubby tails wagging, as they scurry along. No data.

"Dr. E. L'H. McGinnis", page 19, is a splendid specimen of Dr. Kilmer's skill as a portraitist of high rank. The reader is referred to obituary notice, in back part of this issue.

The print of fraternity-house, on page 20, "looks like a jail", to quote the one who made it, and is a record only, and not very satisfactory, even as a record. So deserted and forbidding, it looks! In Fig. 2, page 21, what a transformation! The whole atmosphere is one of beauty, refinement and invitation. These two prints show proof of the vision of the cameraman, who saw his failure, acknowledged it and achieved ultimate success. Data in article.

The fascination of cave-exploration is many-sided. Floyd Collins lost his life trying to bring new beauties to the attention of the world. The scientist finds joy in the rock-sculpture. The beautiful forms of rock-flora urge a man of Mr. Neville's skill in photography to record their wonderful forms, for the benefit of others. How well he has succeeded is amply demonstrated by the beautiful prints illustrating his entertaining story.

On page 23 we are shown a marvelous formation in "The Banana-Stalk". Who could imagine such beauty existing in dark bowels of the earth, never to receive any light, save that which man, in his tireless search for new beauties, should bring in the form of flashlight or electric torch? In "Large Gypsum-Flower", we perceive another form. Here, we are reminded of the so-called ice-flowers which form under certain conditions in winter, on the surface of natural ice. We also recall the beauty of frost on the window-pane. Nature, in three distinct ways here mentioned (and probably others), produces works closely resembling each other—all of never-failing delight to those who really "have eyes to see". Thoreau, in his "Journal", describes the beauty of the "ice-rosettes" or "leaf-crystals", which were of great purity and delicacy. A skilled nature-photographer, Mr. Gleason, has



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recorded these in a way impossible to Thoreau, and has published a book illustrating many of Thoreau's choice and uniquely lucid descriptions of nature.

On pages 24 and 25 we are delighted with further variations of the cave wonders, no less beautiful than those previously shown. In all of these we find the field for stereo-photography, to give us the third dimension. There are no data, but Mr. Neville makes the following comments. "The Banana-Stalk: a unique and characteristic clump of helictites, similar to stalactites and stalagmites. Gypsum Flowers and designs. Acres of this sort of dazzling, sparkling, white gypsum, in all sorts of curious patterns and designs". Of those on pages 24 and 25, he says, "Passage ways for thousands of feet are lined with these" (helictites) "on both sides and on ceilings. All manner of spraggly, contorted masses are found. The very large and beautiful gypsum flower" (page 25) "is about 18 inches long and sticks out from the wall a foot or more."

In "At the Shrine of Buddha", page 29, we have an example of decorative photography on a table-top. It somewhat resembles a Japanese screen, is good technically and worth another try.

Data: Auto-Graflex, 4 x 5, Bausch & Lomb Tessar Ic. lens; 6½-inch focus; exposure 10 minutes, by light of 200 Watt lamp on Super Speed cut film; printed on Azo No. 1.

"Samples of the China-Closet", page 31; a fairly well arranged group of old chinaware; very set and formal. The vase of roses is decidedly out of value, as all but one or two appear black. A panchromatic plate with suitable color-screen would have rendered all tones in better harmony.

Data: January, 10 A.M.; 4 feet from window; 4 x 5 Graflex, 8¾-inch Verito lens, at F/6; one second on Filmpack; M. Q. developer; enlarged on P. M. C. No. 9.

"Photographic Crossword Puzzle", page 32, is a novelty, surely. Mr. Ludlum is a versatile photographer.

ERNEST H. WASHBURN.

## Judgment in Exposure

EXPERIENCE teaches, they say, in exposure as in other things. Yes; but not unless we have some reliable means of forming an estimate. Experience will suffice for any given set of conditions which do not vary beyond certain limits; but it is asking too much that it shall teach us how to expose correctly under all conditions of time, place, subject, lighting, and material.

Being prudent, therefore, we seek the aid of one or another method of estimation: we measure the light-value with an actinometer, which is provided with a piece of sensitive paper which darkens to a standard tint, or with what may be called an extinction-meter, through which we look at the subject, gradually cutting off the light passing until we can no longer see through it at all; or we deduce the exposure from a calculator.

But (and it is a big "but") we must not look upon such instruments as an end in themselves, but rather as a means of education towards perfecting our own judgment of the exposure necessary.

Many able photographers rely only upon their judgment, without reference to any form of meter or table, even for the most difficult subjects. How has such desirable knowledge been acquired? Perhaps the following conversation will serve as an illustration.

Two "old hands" were discussing the merits and demerits of an exposure-meter.

"With an exposure-meter," said one, "and a little intelligence, anyone can expose correctly."

"Yes," said the other, "but with a little more intelligence, the meter could be dispensed with. No meter can tell me what result I am aiming at!"

A good, if paradoxical, piece of advice is to "carry an exposure-meter, but to learn to use it as little as possible by using it, in the early stages, as much as possible, intelligently." A useful mental calculation is to estimate, approximately, the proportion of open sky-area to be seen from the position of the principal subject, and to increase the exposure as this proportion of the possible total decreases. It is mainly from this area that our subject will derive its illumination; and therefore the larger the area of sky which is visible from it, the shorter must be the exposure.

The value of any light-reflecting surfaces present must be taken into consideration; as also, of course, must the luminosity of the sky itself, or any direct sunlight. This consideration, when practised frequently, becomes habitual, and forms a very reliable basis of light-estimation.

If we are to get the best possible result in a negative, we must not look upon "correct exposure" as being too elastic a term, in spite of the "enormous latitude" claimed for some materials. This will be evident if we refer to the subject-scale of an exposure table.

Let us suppose, for example, that we wish to emulate a certain exhibitor, and photograph a black cat on a post, with a cloudy sky in the background. Let us further assume that "latitude" of our plate or film is 8 (*i.e.*, that eight times the "correct minimum" exposure will not unduly over-expose). Reference to the *A.P. and P.* exposure table will show that if the sky requires 1-100th of a second, the cat will require 1-3d of a second; and as these are "minimum correct" exposures, we must not compromise. We must give the cat 1-3d second or lose quality; but by doing so, we shall be calling upon the plate or film to have a latitude of 33, or about four times its normal latitude, and the chances are that we should lose the clouds!

But we don't want to lose the clouds; we would rather lose some of the cat! Very well, we *do* compromise. We give it 1-12th of a second, and if we get a printable cat and a printable sky we may congratulate ourselves, and the makers of the plate or film. If we fail, our remarks, at least, will be "printable", knowing the cause of our failure. We might, indeed, be tempted to try again with panchromatics, and a suitable filter, and expose for the cat!

Latitude in a sensitive emulsion is a most desirable quality, and, for general work, we should not sacrifice this for any other feature; because it not only gives us a working margin of exposure for any subject, but actually extends the range of light intensities which we are able to include, without the mathematical exactitudes which might otherwise make photography into a science rather than, as it is, an ideal hobby.

W. A. CROSS in *The Amateur Photographer*.

## Eugene P. Henry

MR. EUGENE P. HENRY, by birth a Frenchman, but long a resident of these United States, passed from our midst, suddenly, on Sunday evening, May 31, 1925, while enjoying the company of some of his many friends. He was a man of courtly, charming manners, a photographer of rare, artistic ability, a member of the Department of Photography of the Brooklyn Institute, also of the Pictorial Photographers of America, and other societies, and a contributor to salons and exhibitions in this country and abroad, where his work was welcomed.

MYERS R. JONES, Chairman.

# ON THE GROUNDGLASS

WILFRED A. FRENCH

## Help Your Dealer

"MIND your own business!" is a trite and, in certain circumstances, a good bit of advice. It's an ill-natured retort to a well-meant suggestion made to some one in whom one takes an interest. It much depends on who the person is to whom the kindly advice is offered, and *how it is presented.* It is needless to say how this may be done.

The photo-dealer who treats you honorably, faithfully and well, deserves your personal support. You recommend him to your friends; you endorse him. If, therefore, you know any way by which he can improve his business—suggesting some article of merchandise he ought to add to his stock, or some desirable means of publicity, approach him tactfully and, if the idea is a good one, you may be sure that it will be appreciated and gratefully accepted. Or, perhaps, there may be an opportunity for adverse criticism—a salesman may have a shortcoming that seems to call for correction; the store may be untidy, or the counters and goods on display may have gathered dust. If brought to his attention, in a kindly, friendly way, such matters will receive prompt attention. Some dealers leave a clock in front of their store, or inside. It is neglected and gives the wrong time of day by a wide margin. Such a timepiece is worse than useless. It is a source of annoyance to the customer. In a humorous, inoffensive way, the matter can be brought to the dealer's attention. If wise, he will have the offending clock regulated and kept telling the truth, or have it hooded and rendered harmless.

I have known a dealer to display a large clock in his store. It was not dependable. One day, it was about ten minutes slow. The consequence was that a customer—this was before he owned an automobile—having made his purchases, glanced at the clock and left hurriedly to "catch the five o'clock train for Sackville". He arrived at the station too late and—missed the train! In consequence, he changed his dealer. The dealer got rid of the clock, but the customer never came back.

The friendly, observant amateur photographer, if he wishes, can benefit his dealer; for there is hardly one who is perfect and whose store or methods could not be improved. Then, too, few dealers find time to read photo-magazines, even trade-journals, and a bit of criticism, constructive or otherwise, contained in one of them, might never come to his attention.

## At the Pyro Club

THE publisher of the *Photographic Record,* a new member, was peeved. Some one had twitted him about an oversight in the last number of his paper.

It seems that once upon a time he had had invented, and printed in his paper, a really capital joke. Everybody in the camera club had read and enjoyed it. Some months afterwards a thoughtful business-friend saw it in the funny column of the *Boston Transcript,* but without any mention as to its source. Appreciating the photographic nature of the joke, he clipped it, pasted it on a sheet of paper, wrote after it the source—*Boston Transcript*—and mailed it to his friend, the publisher of the *Photographic Record.* Needing a small filler, one day, our journalist hastily selected the clipping from a lot of others, measured it and, without reading it, sent it to the printer. It was not until he appeared at the monthly meeting of the Pyro Club, a month later, that friendly fellow-members called his attention to the fact that he had published his own precious joke for the second time, and had credited it to another paper! No wonder that he was peeved.

## The Ignorant Public

IT is a deplorable fact that most members of the general public—*i.e.,* the average person—do not recognise a good thing when they see it. Individual appreciation of excellence is rare, nowadays. Consequently it will not do for photographic workers to try to profit by this unfortunate condition. Although there are very many persons that visit an exhibition of photographic prints who are unable to appreciate the artistic qualities of a carefully composed photograph, and other excellences, there are many others that are critical observers and instantly recognise the artistic intent of the exhibitor—the noble theme, its fine interpretation and skilful execution. And they are not slow to speak of these things to their friends and give praise where it is deserved.

On the other hand, these same critical visitors cannot fail to notice a print in which a glaring error in composition has been committed. If accompanied by friends, these discerning observers may draw attention to this defect and comment upon it at the same time—wondering, perhaps, whether the exhibitor was conscious of this shortcoming, and hoped that it might pass unnoticed. Well; it might and it might not. It is well to be conscientious, at all times, even in apparently so small a matter as making a photographic print. Some workers, who are not sure of the merit of their prints, submit them for private criticism to friends who are competent critics, and abide by their opinion. The exhibitor is lucky who has such friends.

## Difficult to Smile in the Circumstances

JOCK MACPHERSON had been to the photographer's to have his likeness committed to paper. When he got his proofs, he showed them to his pal, Sandy.

Sandy looked at them in silence for a moment and his expression showed that he was not altogether charmed with what he saw.

"Dinna ye like it?" asked Jock anxiously.

"Ay; but it seems a peety ye couldna ha'e smiled when the mon was takin' ye," replied Sandy, slowly.

"Ay, mon," said Jock sadly, "but I couldna verra well when they photies were costing me twel' shillin's the dizzen!"—Exchange.



XUM

THE CRUCIBLE
A MONTHLY DIGEST OF PHOTO-TECHNICAL FACTS
Edited by A. H. BEARDSLEY

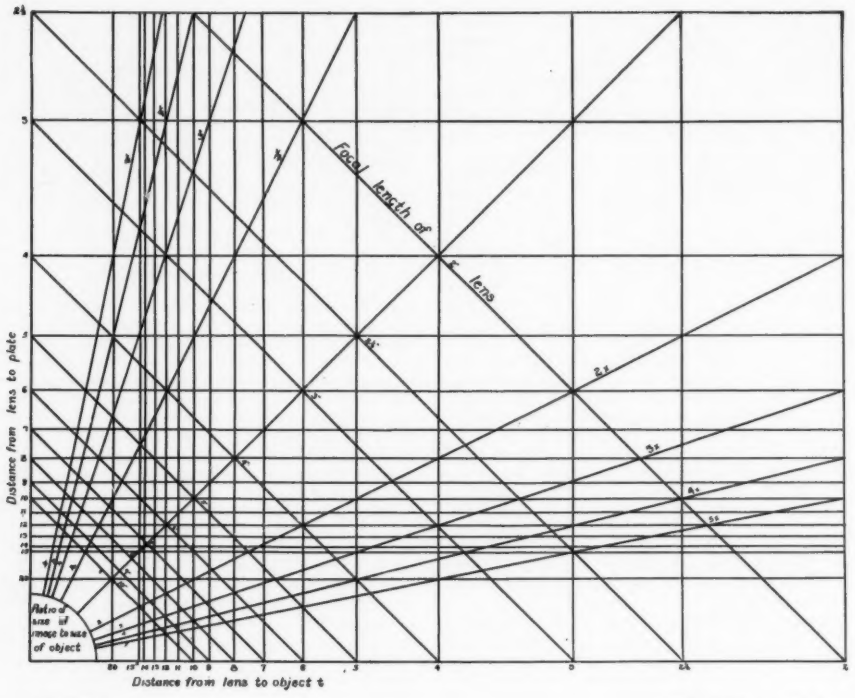



FIGURE 1 HERBERT C. MC KAY

## A Copying-Scale

MANY amateurs help to defray expenses incidental to their hobby by doing odd jobs of industrial work; and it often happens that the jobs they get are those which the local photographer has turned down or tried to do and failed. It is not seldom that the amateur is asked to do some copying to a definite scale, and when such is the case, there usually ensues a wild chase after optical formulæ or a long and tedious trial-and-error search, with much measuring upon the focusing-screen.

A friend of mine often does such work, and in his workroom I found the scale described here. I was deeply interested and asked permission to present it to the readers of this magazine, which permission was readily granted. Much as I should like to do so, I cannot lay claim to having originated this very useful chart.

In the chart illustrated herewith, the data for lenses from two-inches to ten-inches focal length is given. It will be noticed that there are four factors involved, two constants, the ratio desired and the focal length of the lens, both known and two unknown values, the two distances from the lens to the object and to the focusing-screen respectively. An example will show the use of the chart.

Let us suppose that we have a camera fitted with a lens of three-inch focus and wish to make a copy one-third the size of the original. Running down the series of parallel diagonal lines we find one labelled 3″. All formulæ for the three-inch lens will be given by points falling in this line. This line is traced to the left until it intersects the line labeled ⅓. This point is also the intersection of two other lines. The horizontal line is traced to the left and we find that the lens is to be set four inches from the plate. Beginning again at our point and following the vertical line to the bottom, we find that the object is to be situated twelve inches from the lens. Therefore, if we fulfil these conditions, we shall obtain the desired scale.

So far so good. I have found that many graphs, tables and other quick-reference computations are entirely suited to my purpose, so that in order to make this chart as useful as possible I shall describe its con-

struction so that a chart may be made for any desired series of lenses.

The vertical and horizontal scales are made first. It will be noticed that the diagonal indicating one to one equal size, extends from the lower left corner at an angle of forty-five degrees. Hence from the point of intersection, the vertical and horizontal lines of a given value are of equal length. In other words, the lines for, let us say, six inches, or the graphic lines for copying equal size with a three-inch lens, form a perfect square in the lower left corner. Thus the graph is a rectangle with equal sides. Now for copying one half size, it will be noticed that the lines forming the graph enclose a rectangle whose longer sides are twice the length of the shorter; for example, with a four-inch lens, the lens is six inches from the plate and twelve from the object. It will be seen that for any formulæ the graph is a rectangle whose sides are in proportion to the degree of enlargement or reduction. It will also be noticed that all of the graphs upon the chart have the base and left side in common, but the right side and top are variable.

The first step is to locate the base line and the left side line. Now take any convenient unit of length, according to the size of chart desired. One hundred of these units will be your working-basis. Your chart will not have a base line one hundred units long unless you wish to include lenses of one-inch focal length. For a minimum focal length of four inches, your base line will be twenty-five units long, and so forth. The intersection of the base line and the left side will be the measuring point. To determine the various distances, divide one hundred by the focal length and measure the result from the measuring-point, both along the base and along the vertical side. Thus for the four-inch lens, 100/4 – 25. Measure twenty-five units on both lines from the measuring-point, and draw lines from these points perpendicular to the base and fixed side. These last lines will enclose the extreme limits for all lenses of four inches or greater focal length. Now locate the succeeding units in the same manner, five, six, seven and on up. The farther this scale is carried, the nearer you will approach infinity. For purposes of illustration, suppose that this is carried to twenty. On a small chart the lines between fifteen and twenty will be so close, that sixteen, seventeen, eighteen and nineteen will be omitted. (See chart illustrated.)

This completes the graphs proper. The next step is to insert the proportion indicators. Find the two points at which, let us say, six and twelve intersect. Draw a line from the measuring-point and through this intersection, extending to the limits of the chart. One of these lines will be the one-half size indicator, the other the two times indicator. Then locate the intersections of three and nine. These will give the one-third and three times indicators and so forth. Any desired indicators can be inserted in this method.

The final step is to insert the focal-length indicators. Draw a line diagonally connecting the points marked "Four" on both scales. Then draw similar lines connecting each pair of like numbers. These lines will be indicators for lenses of their respective focal lengths. For a single-lens chart, four inch for example, only one diagonal is drawn, that is connecting the two "Fours."

Now, using the chart illustrated, suppose that in using a five-inch lens, you wished to make a photograph five times original size. Following the five-inch line to the five-times indicator, the point is found to be approximately one third the distance between "20" and the base line, whose value is one hundred, and the lens will be six inches from the object. As one factor is not given, we find the need of a chart which ranges from five to fifty instead of from two to twenty. Thus it will be seen that for specific problems, appropriate changes must be made in the chart; but the chart once made for existing circumstances, will soon make itself an invaluable item of laboratory-equipment.

HERBERT C. MCKAY.

### Diagram Lantern-Slides by Reversal

THIS title relates to the making of lantern-transparencies or slides in the camera by means of a negative exposure. This is accomplished quite easily and with certainty by using plates very thinly coated with a sensitive emulsion, especially when the vehicle is not gelatine. There is one plate procurable which answers these requirements, viz., Paget half-tone plate.

Represented in the makers' lists as being of speed H. and D. 90, this plate corresponds fairly closely to a gelatine process plate, and its sensitiveness is quite sufficient for use with half-watt electric lamps.

A developer giving good results is that prescribed for the plates, namely, a hydroquinone and caustic soda formula. The developed negative that is intended for reversal must have full density and the lines must be quite free of deposit or fog. Being thinly coated these plates are very quickly washed, and this washing must embrace both film-side and glass-side of plate, as the contamination of the reversing-solution with the developer will upset the process.

After being well washed, back and front, the negative is immersed in a mixture of the following solutions:—

| | | |
|---|---|---|
| A. | Potass. permanganate..... | 60 grs. |
| | Water..... | 10 ozs. |
| B. | Sulphuric acid..... | 1 oz. |
| | Water..... | 10 ozs. |

These are mixed in equal parts, and the mixture used at once.

The negative having been immersed in this mixture, daylight or strong electric light may be introduced. After about five minutes' immersion the plate is removed and washed, back and front, then immersed in the original developer, where it remains in the rays of electric lamp or in daylight, if available. The reversed image then quickly develops, and when full density has been attained the plate is again washed and fixed in clean, fresh hypo (2 ozs. to 20 ozs. of water).

The reversing-solution must be mixed just as it is required. It will not act satisfactorily unless it is quite fresh; in fact, it will not act at all at the end of fifteen minutes from mixing.

Unless the negative has the white portions of the diagram represented by opaqueness, and the lines by absence of deposit, the reversed positive will not be satisfactory.

A rapid application of Farmer's reducer will clear away any fog from short exposure or development.

W. T. WILKINSON in *The British Journal.*

HERE is a suggestion that may be of some help to PHOTO-ERA readers, if you care to publish it in some corner of your magazine. Most readers of your magazine who develop their own prints, I believe, know that potassium iodide added to the developer will prevent abrasion marks on prints; but like myself do not possess a pair of scales to weigh out the amount desired, ⅛ grain to the working ounce of developer or 1 grain to 8 ounce of developer, just the amount of an Eastman M. Q. tube. A novel way of weighing out this one grain, is to go to any drug store and purchase a number of one grain capsules, When needed the capsule can be emptied into the developer.

PAUL L. MILLER.



XUM

# THE STEREOPHOTOGRAPHER

## Stereoscopic Portraiture

Stereoscopic portraiture is one branch of that fascinating hobby, about which we hear little. It should not be neglected, for the stereo-portrait is as great an improvement over the ordinary one-lens portrait, as the stereo-view is over an ordinary landscape-photograph.

Some stereo-workers, no doubt, have been kept from practising portraiture, because of the focusing limitations of their instruments which do not permit focusing within nine or possibly six feet of the camera. The portrait I allude to is real portraiture, head and shoulders, or just head. A three-quarters length or full length at six or ten feet is good; but the close-up is even better.

Where the one-lens portraitist is deterred from making close-ups because of the distortion and bad perspective, the stereo-worker has nothing to fear as the stereoscopic vision in the viewing-instrument will take care of all that.

The writer is not a portraitist by any stretch of imagination. In fact, about ten per cent. of his work can be counted fair; but once in a while he catches a victim in sunlight, in the early morning or late afternoon, when the sun is fairly low, and makes a sunlight "portrait". These snaps he considers much better than anything he could obtain with a Graflex, whatever the lighting used. The three prints which I enclose are offered as encouragement to any stereo-worker who has never tried close-up portrait-work, and as horrible examples to those who have done really good stereo-portraiture. No claims are advanced as to the merits from an artistic standpoint, as regards pose, lighting or background.

## An Advantage of Stereo-Photography

One great advantage of stereoscopic photography, is that one may follow this hobby every day and any place, especially places near at hand and about the home. A collection of prints made with an ordinary camera of the familiar spots in the home-town, or near home, will soon become uninteresting; but the reproduction of such views with a stereo-camera will give prints that will seem real and retain their interest.

For an example—personal but I hope pardonable—I lived for about two years in a small town in western Texas, very uninteresting and nothing of the picturesque about the town itself. The character of the surrounding country was interesting; but not beautiful. On a hill overlooking the town, a rich man from a nearby city built himself a home, in fact three of them before he finished, and spent much money beautifying the grounds, which covered the hilltop and sides, including probably twenty acres.

It was in this town that I first became interested in stereophotography. But, at first, I decried the lack of interesting places to photograph. That was before I had finished the first batch of negatives and prints. After seeing my first stereo-print, I knew that there was enough material waiting to be photographed in my immediate vicinity, to keep me busy as long as I might remain there. It did, and I missed many really good things, because I spent the time photographing those nearest and easiest to obtain.

One bit of landscape was always pleasing to the eye, as I went past; but a snap with an ordinary camera failed to obtain a picture of any interest. The stereo accomplished this, where the other camera failed. So on with the other pictures made on the private grounds already mentioned. None of great interest as a single picture; but they hold the attention when viewed stereoscopically. An avowed pictorialist would probably pick out parts of the landscape and park views to make a real "picture"; but I rely on the stereoscopic positive to give me the realistic representation. It is much easier.

I have said a great deal without quoting the moral or excuse for it all. It is simply this—though every stereo-enthusiast already knows it—that the stereo-camera will make commonplace views interesting and lifelike, where the one-lens camera fails. I hope to influence some amateurs, readers of Photo-Era Magazine, who may have been wavering, to enter the branch of photography which will be certain to give greater enjoyment in the end.

Charles Francis Hamilton.

## Photographic Portraiture and Painting

Editor Photo-Era Magazine:

Referring to articles by Mr. Rudolf Eickemeyer and in the *New York Times*, I would like to remind Mr. Eickemeyer of the "Ives Parallax Stereogram". This invention can produce portraits which are made with two lenses, are life sized, and of full stereoscopic effect. There is no cumbersome device necessary to view them properly. The plasticity is overawingly perfect. No painted portrait can possibly compete with it and yet, strange to say, very few people seem to want a portrait of this sort of themselves, or of their beloved ones. Dr. Herbert E. Ives, son of the inventor, Frederick E. Ives, told me not long ago, "New inventions which require the capacity to see hardly ever succeed, for the average person cannot use his eyes".

As to the difference of the painted or photographed portrait, this brings up the old question, "is photography an art?" I settled this question to my own satisfaction as follows: Is painting an art—is sculpture? Are speaking, singing, dancing etc. arts in themselves? They are but means of expression and become an art only when a competent artist is using them to express himself. So with photography—if a master portraitist will use the camera instead of the palette, to produce a portrait, he will achieve a work of art.

True enough photography does not handle colors as a painter, nor does it make as durable pictures as paints do. But these two are the only handicaps of photography in overtaking and subduing portrait-painting altogether. There seems to be little hope of ever overcoming the color-handicap. The capacity of the human eye of counter-acting all local colors and, so to say, to create a complementary net of colors over and between all colors it sees, will hardly ever be matched by any mechanical device. Until then, no color-photographer can achieve the same results that the painter does.

Nicholas Ház.

# THE AMATEUR KINEMATOGRAPHER

HERBERT C. McKAY

## Some Real News!

WELL, my kinematographers, I have real news this month. There is an organisation of kinematographers in this country and one which is doing real good in a very quiet and retiring manner. This is the Ciné Club of America. Headquarters may be addressed at H. P. Station, Detroit, Michigan.

This club is rather unusual in its objects and its methods of organisation. The primary object seems to be to place the sixteen millimeter camera in the hands of those persons who could not afford to purchase the necessary equipment—and it is rather expensive just at present. Its method is to make it possible for any group of persons, numbering ten or more, to form a club which is affiliated with the parent organisation. The maximum membership of any one club is twenty. Any number of clubs may be formed in any city or neighborhood. It appears that the idea is to provide units small enough to use one camera. The cost of an outfit divided among so many would be small indeed, per individual.

The fees are, I understand, one dollar per year for the local club and one dollar per year for the headquarters-organisation. Furthermore, each club must make and present to headquarters one film which shall comply with certain specified requirements as regards subject, scenes, footage, titles and so forth. In this connection, members are classified "C", "B" and "A". Class "C" are beginners, "B" more advanced, while Class "A" are those who may be truly called amateur kinematographers. (When will we learn that an amateur is one who has more or less expert knowledge and enthusiasm for his hobby?) The Ciné Club of America correctly calls their highest class, "Amateurs".

The first, or class "C" picture shall have as its subject the home-city or neighborhood of the club. This is a very good point. It will result in widespread knowledge of our country, and as the leaders of this club so aptly say, "The Ciné Club of America will make it possible for the slogan, 'See America First' to be realised by the mass of the population instead of being limited to those who can see the country from the Pullman".

These films will be placed at the disposal of the affiliated clubs without charge. In short, the club is doing its utmost to bring the pleasure of ciné work within the reach of everyone; and, so far, it has adopted excellent methods to gain its goal.

Recently, I have noticed a tendency for the technical journal, in all lines, to become more and more technical. This is appreciated by a few highly advanced and strictly professional workers in various fields; but in every field which has, like photography, a wide amateur and a wider beginner following, there must be a journal devoted to the interests of these workers. A few days ago this struck me forcibly while reading a photographic publication, and that same day I received a letter from the Ciné Club of America which stated that there was nothing published for the beginner in kinematography. I then decided that it was up to me to set my own house in order before criticising my neighbors. With this in view, I wish to announce that very shortly we shall begin to carry a series of brief discussions of the beginner and his troubles.

I make this announcement in order that those of you who wish to do so, may send suggestions as to the topics which should be treated. Tell of those points which have given you trouble. If you have made any discoveries, tell us those also. These articles will not have any commercial or professional matter in them at all. They will be for the exclusive benefit of those who are beginning in the gentle art of kinematography, and in the course of time, as this army grows and advances, we shall endeavor to keep pace.

In this department, we try to adhere closely to the established policy of PHOTO-ERA MAGAZINE. That is we wish to give the utmost possible benefit to the beginner, and we wish to give that which is the most in demand from our readers.

We hope that this series will be started in a very early number, but this will of course depend to some extent upon the difficulties encountered in preparing the material. However, it will begin soon, and then we and the kiné-beginners are going to pull together for better kinematography.

. . . . . .

The interest in sub-standard work steadily increases and it is daily more apparent that finally the vision of advertising and commercial motion-pictures is to be realised in a thoroughly practical manner. More and more manufacturers and salesmen are showing interest in this work, and there are many private persons who have had films made for perpetuating family-scenes.

## The Kinematograph and Education

ONE of the directions in which amateur kinematography is likely to receive its greatest development is in the use which can be made of it for educational purposes. For example, at the Teachers' Conference recently held at Oxford, demonstrations were given by Major Cartwright at the Friends' Meeting House which were very attractive, as many as two hundred fifty teachers attending at one time. In this case a small model of the home and educational type of kinematograph was used; and machines of the same kind have recently been installed at the Leeds University, Denstone College, Stoke, Bembridge School, Isle of Wight, and the Preparatory School, Carlisle. This type of machine was also demonstrated before the principal education authorities in East Lancashire by the Reverend Viscount Mountmorres; and another example of its use is given by the Government Schools of Equitation, where it is installed.

*The Amateur Photographer.*

## New Subjects for Home-Movies

MESSRS. W. BUTCHER & SONS, LTD., advise us that they have recently added to their film-library some important adaptations from English classics, including *The School for Scandal, Daniel Deronda, Hard Cash, The Channings, Lorna Doone,* and *In Old Alsace.* Two films of special interest have for their subject a hunting pageant and the manufacture of a Mazda lamp.

Lord Glentanar, on a recent yachting-trip, took a complete amateur kinematograph outfit.

*The Amateur Photographer.*



XUM

# THE MILITARY PHOTOGRAPHER

CAPTAIN A. H. BEARDSLEY, SIGNAL—RES.

## Aerial Photography at Pope Field

An important but little heard of aerial photographic activity is going on at Pope Field, Fort Bragg, N.C. The Field Artillery Board are trying to reduce the use of aerial photographs, to compute firing-data, to such a practical basis that it may be incorporated in the Field Artillery Training Regulations. The aerial photographic end of this investigation is being handled by Lieut. Edmund C. Lynch, A.S. and three enlisted men sent here from Langley Field. Major Faulkner Heard is the member of the Field Artillery Board who is handling the actual use of the photographs in firing-problems.

The photographs are made by Lieut. Lynch, prints made, and data as to the scale and orientation inked on the print before it is turned over to the Board. Major Heard computes the firing-data and fires a problem to see what accuracy could be obtained. Several problems were fired in order to strike an average.

The investigation began with the use of a single photograph which showed two panels, one representing a reference-point, visible from the observation-post on the ground, the other representing a target, assumed invisible from the observation-post. These panels had been accurately located by surveying-methods so that the accuracy of the photographs could be checked. The scale was determined by making photographs of a base-line, assumed to be behind our front lines, before flying out over the range to photograph the panels. Orientation was a more difficult problem, as the panels were assumed to be in unknown territory. The most accurate means of orienting was by means of the "Baldwin Solar Chart", which gives the angle between the line of shadow and true north when the time, date, latitude and longitude are known. In firing the problem, the gun was adjusted on the reference-point by ground-methods and then shifted to the target by means of the data obtained from the photograph. Only one gun was used, but the group of shots fell so close to the target that it would have been destroyed had an entire battery been used.

The second step in the investigation was the use of a mosaic strip and a mosaic. They were assembled very accurately. No attention was paid to matching the topography, the photographs being assembled using their centers and ground-control. However, no ground-control was used beyond a line assumed as the battle-front. The presence of a large number of control-points made it easy to tie the mosaic together. It also made a strong foundation for the grid which was placed on the mosaic and strip. The mosaic, since it was gridded, was used like a map in computing the firing-data. That is, the range and deflection were not only scaled off, but they were also computed from the co-ordinates, as scaled from the mosaic.

At present the Tri-lens camera is being used to work out a series of problems of a more complicated nature. There has only been one problem fired from these photographs, as yet. The results so far have shown that the Field Artillery is no longer helpless when the target is invisible and no maps are available. The Air Service takes on a new relation with an arm that now uses aerial observation as a matter of course.

No means are available at present to accurately and speedily determine the elevation of the target, particularly when only one or two photographs are made of the target-area. Nevertheless, in time of war, using this means of computing the initial firing-data, the first shots should be close enough to target to enable the aerial observer to locate the shots of his battery without trouble. It will go quite a way to make Field Artillery firing faster and more accurate.

## This Matter of Military Photography

Perhaps some of our readers do not quite understand the reason that this department was made a part of Photo-Era Magazine. Well, let me try to state my position. At the outset, let me say that it is through no desire to be instrumental in stirring up another war. Let us hope fervently that there never will be another one. Neither is it because of a desire to fill up space. Frankly, it is for the simple reason that through military photography as now practised in the U. S. Army and U. S. Navy we can all learn of cameras, lenses, processes and methods which are often far more accurate than those used in ordinary industrial or pictorial photography. By that I mean, that in military photography there must be an attention to detail and an excellence of technical ability which is not often required in civilian photography. Take for example the applications of airplane photography to surveying, mapping and exploration. Witness the exceptional work of such Army officers as Lieut. A. W. Stevens whose photographs are truly marvelous and of great scientific value. In fact, today the U. S. Army Air Service is rendering remarkable service to the entire country. All this effort is not for war-purposes but for the development of the country and to help us all to know more of this great land of ours. Other nations are adopting similar methods.

Another reason for this department is to take a stand squarely on National Defense and the present policy which places protection and maintenance of law and order fairly on the shoulders of every American citizen. If this country is good enough to live in, it is worth guarding against all the agencies which would destroy it, from the inside as well as from the outside. This does not mean carrying a chip on our shoulders or picking a quarrel but rather an organised establishment which can function efficiently in times of internal or external stress. In short, the American citizen who stands ready to uphold the Constitution of the United States and the liberties which it gives to every one of us is the man who realises his responsibilities and is the citizen who makes this country great.

A third reason for this department is that in military photography—for those who enter the Army—there is a splendid opportunity for advancement. Moreover, after this military training the young man can return to civilian life with a profession which he has thoroughly mastered and in which he has received a training usually far in advance of civilian schools. For in the Army he must learn; but in civilian schools he can often graduate or not, as he pleases.

In conclusion, Photo-Era Magazine is widely read in the U. S. Army and U. S. Navy by officers and enlisted men who appreciate this department and what it stands for.

# LONDON LETTER

CARINE AND WILL CADBY

SARGENT, the great American painter is dead. Here, we have grown to look on him as an Englishman; for he has been among us and in close touch with the world of art on this side of the water for many years. It has been said that in those extraordinarily vivid and true records of landscape, mostly executed during holidays, Sargent showed no designing skill, and that they were as unselective as a photographic snapshot. Nature is accepted just as she presented herself, without rearrangement of the incidents to fit the rules of conventional picture-making. But a closer study of these apparently haphazard studies reveals that everything is in its right place, balance is perfect; and that it was either a case of art concealing art or he found his design in Nature instead of imposing it on her. The latter proposition is a cheering one for photographers who are, to so great an extent, tied down to recording the actual facts that face the camera; and, if there is truth in the first suggestion, we may take heart in the knowledge that even in photography, art can conceal art by seizing on the incidents of lighting to subdue or accentuate certain planes.

Sargent, like most Americans, was an indefatigable worker, and at the height of his popularity it was no uncommon thing for him to undertake three sittings in a day. All the world is familiar with his marvelous portraits, some of which seem, to onlookers, to reveal secret characteristics of his sitters. Once, on being interrogated on this point, he dismissed the subject somewhat curtly by saying: "I chronicle, I do not judge."

"I can't stand professional photography and I refuse to go," was the downright answer we received from a friend we were persuading to join us at the Exhibition of the Professional Photographers' Association just now being held in London. In the end, however, he consented, and we were able to enjoy his amazement at the standard now reached by British professional work. He was caught at the very beginning by Angus Basil. "But this has not been done by a professional," he said, pointing to a fine genre-study, a photogravure on limp Japanese paper. We called his attention to the legend attached to the print:—"Executed for Messrs. Pears Soap". "A Portrait" by J. Campbell Harper, "Mrs. D." by Arthur H. Davis, and "Teresa" by W. Fisk Moore took most of the wind out of his sails, and when we reached some landscapes, notably "Durham—An Impression" by Octavius C. Wilmot, a fine piece of imaginative work, and "The Enchanted Wood" by Harold Ranson, we were leading round a tame and converted appreciator of professional work. In fact, he agreed with the Associate Editor of PHOTO-ERA MAGAZINE, who had also visited the exhibition while in London, that there is not much wrong with British Professional Photography, for he said that it holds its own well with that seen at any modern convention in the U.S.A. Indeed, it is well worth while for the Professional Photographers' Association to organise such an exhibition in the very heart of London and in the month of shows, when all the country people come to town to see the year's art.

The Professional Photographers' Association is at present holding its Congress in London which was opened on May 11 with a reception given by the President and Mrs. Raines, the cheery and informal atmosphere of which ensured a delightful evening. Each day there were lectures, demonstrations and meetings; but on Wednesday a real holiday spirit prevailed. To begin with, it was our first true summer-day, when a dreary, gloomy spell that had lasted all the year was at last broken by a burst of brilliant sunshine and radiant weather-conditions. It was also the day the members of the Convention had been invited to Messrs. Houghtons' big Walthamstow photographic works. This outing proved one of the most popular of the week, and many members took advantage of Messrs. Houghtons' hospitality and came back filled with enthusiasm at their reception and entertainment.

As we have said before, this is the month of shows in London. For most of the public, the Royal Academy leads the way; even although it is much disparaged by the highbrows of modern art, it attracts a bigger public than all the other shows put together and still carries much weight. But paintings are not our business, and we hasten on to record that the rooms of the Royal Photographic Society are housing two separate exhibitions. On the lower floor Miss Kate Smith shows a set of her own particular subjects, elfin, woodland, nymphish, and not very serious. Above, in the big gallery, is the Overseas Exhibition, an intensely interesting show which merits far more space than we are able to give here. It strikes us at once, coming from Miss Smith's feminine, charming but a little vague collection, what a masculine and virulent spirit there is in these pictures from Africa, Australia, Canada and other countries. They demonstrate that individual schools of photographic thought are being evolved in various corners of the Empire, strongly influenced no doubt by environment. And as time goes on, they are likely to develop more marked characteristics of their own.

We have grown to look on the readers of PHOTO-ERA MAGAZINE as a large united and mutually interested family, and when one of the mainsprings of the journal finds its way to Europe, it is only natural to record our view of the occasion, or rather the few hours the Associate Editor and his wife spent with us.

And so, on the platform of our little local station down in Kent, we met the man with whom we had been in touch for twelve years but had never seen; and with him came his charming wife whose reputation had preceded her. We were strangers to each other for perhaps just one second; and, after that one informative look, we found ourselves chatting like old and intimate friends. It was amusing that our first words should have to do with the craft that had brought us together, for the immediate need of our guests was to buy a roll of film to record the fruit-blossoms that just now are such a marked feature of this district.

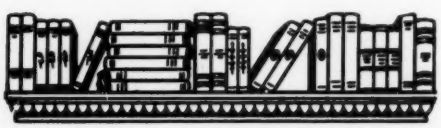
The day was one of England's best; a May day on which the sun shone uninterruptedly, lighting up the delicate green foliage and turning the masses of broom and gorse into veritable fire. After lunch we visited Ightham Moat, a show-place of the neighborhood, dating back to Plantagenet times. Mr. French told us the date of the Moat House before we entered, and very soon he was telling us and the guide all about its



XUM

treasures, exactly where such and such a picture had come from and to which schools they belonged, translating Latin and French inscriptions, and explaining everything; the guide, meanwhile, being content to take a back seat and allow Mr. French to do everything but accept the tips! But the most charming episode of the day occurred at tea. A cuckoo started its loud call in a tree in our garden. Immediately, our friends both rushed to the open door, and looking around with all the spontaneity and vie of youth exclaimed, "And was that a real cuckoo?" And then, just as if to satisfy their lively interest in new experiences, the somewhat unwieldy bird flew across the scene.

The Associate Editor and Mrs. French seem to us to have met an astonishing number of charming people. We were continually hearing of delightful conduct and pleasant sayings by our own country-folk. We were almost succumbing to the seductive illusion that these isles bred a strangely attractive race. However, we realised, in time, that it was simply the atmosphere which Mr. and Mrs. French carried with them. They radiate good will and courtesy, and naturally even we phlegmatic British people cannot fail to respond. It must make traveling very pleasant.



## BOOK-REVIEWS

*Books reviewed in this magazine, or any others our readers may desire, will be furnished by us at the lowest market-prices. Send for our list of approved books.*

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STALKING BIG GAME WITH A CAMERA, by Marius Maxwell. 311 pages, 77 photographic illustrations, Appendix and Index. Price, decorated cloth-cover, $9.00. New York and London: The Century Company.

The lover of nature and of the camera will find a rare treat in store for him when he begins to read Mr. Maxwell's fascinating account of his photographic experiences in Equatorial Africa. The combination of important nature-lore and photographic data arouses new enthusiasm for natural history and the manipulation of the camera.

In this issue we are quoting the chapter, "A Camera-Huntsman's Equipment" and reproducing two of the exceptional illustrations with which Mr. Maxwell's book is filled. We believe that our readers will profit by the practical advice and suggestions given, because a number of them may be applied to photographing big game in the United States and Canada.

The volume opens with a preface by Sir Sidney F. Harnes, K.B.E., Sc.D., V.P.R.S., Director of the Natural History Museum, London, England, and this is followed by an excellent introduction by the author. Then, in interesting sequence, come the following chapters: "A Camera-Huntsman's Equipment", "First Visit to British East Africa", "With Camera After Elephants in Bush-Country", "Camera-Sport With Elephants on the Amala and Mogor Rivers", "The Senses of the African Elephant", "Camera-Incidents With the Masai Giraffe", "Camera-Sport with Buffalo and Rhinoceros", "Further Experiences with Rhinoceros Bicornis", "Camera-Sport with the Hippopotamus", "On Safari to the Northern Frontier District", "Wild Elephants and the Camera at Abbas Wen", and "With Camera After Elephants in the Lorian Swamp". Two appendixes, one on elephants and the other on the primeval man and the pleistocene elephas completes a book which holds the reader's attention from cover to cover.

Mr. Maxwell's style is pleasing and the many anecdotes with which the text is filled add greatly to the reader's pleasure and to his understanding of the difficulties which confronted the author. The typography and illustrations are admirably done. The volume is an addition to any library-table. We believe that our readers will find much pleasure and profit in a careful reading of "Stalking Big Game With a Camera".

THE ART OF THE PITTI PALACE; with a Short History of the Building of the Palace, and its Owners, and an appreciation of its Treasures. By Julia de Wolf Addison. Illustrated. Decorative Covers. 389 pages; Complete Index. Price, $3.00. The Page Company, publishers, Boston, Mass.

"Florence and the Pitti Palace!" These are words that stir the emotions of the impressionable tourist. You cross the Arno over the Ponte Vecchio and soon arrive at the Pitti Palace. Once within the walls of this wonderful palace consecrated to art, you lose yourself in admiration, for nearly every picture is by a master whose name is a household-word. Every room is spacious and well-lighted, and, unbidden, you wander back to the rooms you first entered and gaze anew at pictures you have known since childhood. Well, you make up your mind that one day does not suffice, and so you return the next day, even though you may sacrifice a visit to this or that church or monastery.

The charm of this treasure-house is delightfully presented by Julia de Wolf Addison, a sincere lover of art, a sound critic and an engaging writer. She leads you irresistibly from the Hall of Venus, glorified by Tintoretto's Marriage of Venus and Vulcan with Cupid; Titian's St. Catherine; his Bella; Salvator Rosa's two great marine-views, and works by other great masters—into the Hall of Apollo, adorned with Raphael's portraits of Angelo Doni and Maddalena Doni; Murillo's Madonna and Child; Titian's Magdalen and portrait of Pietro Aretino; Fra Bartolommeo's Pieta; Rembrandt's self-portrait, and numerous other pictures of lesser fame.

Thence you are enticed into the Hall of Mars. Here Rubens shines by reason of his Mars preparing for War; his Four Philosophers and St. Francis. Many art-lovers, however, prefer Raphael's portrait of Pope Julius II; Cigoli's Ecce Homo; Titian's portrait of Howard, Duke of Norfolk; Allori's Judith with the Head of Holofernes; Guido Reni's Rebecca at the Well; Andrea del Sarto's Holy Family; Bordone's Repose in Egypt, and works by other masters.

You then proceed into the Hall of Jupiter, which boasts the possession of Paolo Veronese's Three Maries, and his Jesus taking leave of his Mother; Salvator Rosa's two war-scenes; Andrea del Sarto's Annunciation—the most prominent of the collection.

The adjoining Hall of Saturn rejoices in the presence of more popular pictures, *viz.*, Raphael's Madonna of the Chair (della Sedia), Madonna del Granduca, Madonna del Baldacchino, and Vision of Ezekiel; Perugino's Deposition; Del Sarto's Disputa, and Giorgione's Nymph and Satyr, accompanied by works of other artists.



XUM

In the Hall of the Iliad, hang Giorgione's famous Concerto (Concert); Rubens' Holy Family; Del Sarto's Assumption of the Virgin, and Biliverti's Tobias and the Angel, as outstanding masterpieces. In the Stanze of Prometheus, Ulysses and della Stufa are mural paintings and easel-pictures by Cortona, Rosselli, Lippi, Botticelli and numerous other artists.

The author gives the history and many interesting details of each important picture, also of the artists, and imparts to the book the combined charm of critical analysis, narrative and portrayal.

W. A. F.

### As You Hike It!

KODAK, Kodak as you go—
Matters not where heading;
Everywhere before your eyes—
Scenes of beauty spreading;
Every turning in the road,
Every mead and valley,
Every hill and mountain peak—
Yours—to take and tally!

Kodak, Kodak as you go—
Let not scenes remind you
Of that Kodak left at home
Many miles behind you.
Take a Kodak when you go!
Never once forsake it;
Pictures wait on every hand—
Take it, take it, take it!

WILLIAM LUDLUM.

### Get Your Name into Print

THOSE readers and subscribers who solve the entire photographic cross-word puzzle by William Ludlum, on page 32, will have their names printed in the first available issue. If our readers would like some more photographic cross-word puzzles, Mr. Ludlum has kindly offered to prepare them.

## COMING EXHIBITIONS

AUGUST 29 to SEPTEMBER 26, 1925. The Second Midland Salon of Photography to be held in the Art Gallery, Birmingham, England. All particulars and entry-forms may be obtained from the Honorable Secretary, Capt. F. C. T. Hadley, Houndsfield, Hollywood, Birmingham.

SEPTEMBER 14 to SATURDAY, OCTOBER 24, 1925. Seventieth Annual Exhibition of the Royal Photographic Society of Great Britain, 35 Russell Square, London W.C. 1, England. Last day for receiving prints Friday, August 14. We have entry-forms and shall be glad to mail them as long as they last, to any readers who will send two cents in stamps for postage.

NOVEMBER 1, 1925. New Zealand Photographic Salon, Dunedin, under the auspices of the Arts Committee of the New Zealand and South Seas International Exhibition, 1925–26. The Salon will be housed in a specially equipped building. Last day for receiving prints, October 15, 1925. Entry-forms may be obtained from the High Commissioner for New Zealand, 413–5 Strand, London W.C. 2, England, or from H. M. British Trade Commissioner, 285 Beaver Hall Hill, Montreal, Canada. We have a few entry-forms which we shall be glad to send to any of our readers.

## THE PICTURE-MARKET

*There is a market for every good photograph. The amateur and the professional photographer have the opportunity to sell good pictures and to derive financial benefits from their camera-work. To make this department accurate and reliable we have requested and obtained the hearty co-operation of the editors. We make no claim to publish a complete list of the market each month: but the names of magazines that appear below we know to be reliable and in the market for photographs at the time of going to press. We have obtained our information direct from the editors themselves.*

*New York Times, Mid-Week Pictorial, and Wide World Photo Service*, 229 West 43d St., New York City, N.Y. Charles M. Graves, Art Editor. Wants news photographs. Size unimportant. Glossy prints desired. As little descriptive matter as possible wanted. Pays for accepted prints; *New York Times*, $10; *Mid-Week Pictorial*, $5 per print; *Wide World Photos*, $3 per print, on acceptance.

*House and Garden*, 19 West 44th St., New York City, N.Y. Heyworth Campbell, Art Editor. Wants photographs of houses, interiors and gardens. Size 5 x 8, glossy. Needs about twenty-five words of descriptive matter. Write the magazine as to its requirements before submitting prints. Pays $3 to $5 each print, on acceptance.

*American Farming*, 537 South Dearborn St., Chicago. Paul Stephens, Art Editor. Wants agricultural photographs. Size, 5 x 7 inches. Cover pictures, 10 x 12 inches. Glossy prints wanted. A good story will help sell the picture. Stories must be current. Better write the editor before submitting pictures. Pays from 50 cents to $15, on bills rendered. Editor writes: "We do not want freaks. Pictures must exemplify good agricultural or domestic economic practices. Farm machinery (tractors, threshers, etc.) can be secured from the manufacturers, and good roads pictures from cement associations, free."

*The Farm Journal*, 230 South Seventh St., Philadelphia. Charles P. Shoffer, Art Editor. Wants story-telling photographs. The photographs needed for *The Farm Journal* must be interesting, amusing, or tell a definite story. Any size. Cover pictures should be 15 x 20 inches. Glossy prints preferred. Enough description should accompany the picture to accurately describe it. Pays from $1 to $3 for ordinary pictures, and $30 to $50 for covers; on acceptance.

*The World's Work*, Garden City, N.Y. R. T. Townsend, Art Editor. Wants pictures of people prominent in the news. Size 8 x 10, glossy. Enough descriptive matter to serve in writing short captions. Write the Editor regarding the requirements of the magazine before submitting pictures. Pays $1 to $3 for pictures, on acceptance.

*The Farmer*, 59 East 10th St., St. Paul, Minn. Berry H. Akers, Art Editor. Wants human interest pictures pertaining exclusively to farm life and farm scenes adapted to the Northwest. Any size. Cover pictures 5 x 7, or in that proportion. Glossy prints wanted. Enough descriptive matter for a caption needed. Price paid depends on the print.

*The American Hatter*, 1225 Broadway, New York City, N.Y. E. Hubbard, Art Editor. Wants photographs of window displays, store interiors having an *idea* in the equipment or merchandising of hats. Pays $2 if acceptable.



XUM

# HERE, THERE AND EVERYWHERE

**To ensure publication, announcements and reports should be sent in not later than the 5th of the preceding month.**

## Pittsburgh Salon Elects Officers

At our regular Spring Meeting, the following officers were elected: president, O. C. Reiter; vice-president, N. S. Woolridge; print-director, S. A. Martin; lantern-slide director, Benjamin J. Robinson; secretary and treasurer, P. F. Squier; and executive committee, C. E. Beeson, F. O. Van Gorder, W. C. Mellor, O. C. Reiter, and P. F. Squier.

The Thirteenth Annual Pittsburgh Salon will be held in the spring of 1926, this time being from about the middle of March to the middle of April, instead of during the month of March as heretofore. Entry-forms will be mailed about October 1 and entries will close the early part of February.

P. F. Squier, *Secretary.*

## Elysian Camera Club, Hoboken, New Jersey

The Elysian Camera Club, 307 Washington Street, Hoboken, N.J., held its regular monthly meeting and election of officers for the coming year on Thursday evening, May 14. The following officers were elected by acclamation: Richard Reynolds, president; Charles Westerburg, vice-president; George Sting, treasurer and corresponding secretary and Paul Eickhorn, recording secretary.

The club calls the attention of amateur and professional photographer to the fact that it is the only photographic society in Hudson County, New Jersey. We offer a welcome to all who visit us, as well as to members of other clubs.

George Sting, *Corresponding Secretary.*

## Brooklyn Institute, Department of Photography

The Department of Photography of the Brooklyn Institute closed its active season with several interesting exhibitions. Miss Sophie L. Lauffer's class in pictorial photography exhibited its work the week of April 27. The pictures in this exhibition—representing thirty-eight exhibitors—showed examples of all the pictorial processes from bromide to hand-coated platinum and presented a harmonious set of prints which quite justified Miss Lauffer's pride in the results obtained. Her classes planned to end their session with an outing in beautiful Westchester on Sunday, June 7.

William H. Zerbe's classes held their annual exhibition of work done by his students during the season. The prints shown were of a high standard and Mr. Zerbe considered the average quality better than any of his previous class-exhibits. Mr. Zerbe has always been particularly successful in getting his pupils to try the different processes such as Carbro, Gum, and Kallitype, and among promising newcomers who showed work in these were noted Messrs. Albers and Biscardi. Mr. Zerbe's classes ended their season with an outing at Woodland, Westchester County, on May 24.

At the annual meeting of the Department, these officers were elected for the coming year: president, J. W. Aughiltree; vice-president, Sophie L. Lauffer; secretary, A. Merrell Powers; treasurer, J. Halstead Patterson; Chairman of the Executive Committee, Wm. Elbert Macnaughtan; and vice-chairman, Myers R. Jones.

The Thirty-fifth Annual Exhibition of work of the members of the department was held the week of May 11 and brought out some interesting work by recent members of the department, as well as work of the customary excellence by the older members. Those represented were: William A. Alcock (5), J. W. Aughiltree (3), J. Milton Bergen (2), Thomas Blake, Jr. (2), Mary E. Callaghan (3), Chas. W. Case (2), H. Richardson Cremer (4), George Hamilton Dean (2), Vernon E. Duroe (5), Eugene P. Henry (3), Antoinette B. Hervey (3), Ethel W. Hill (1), Ida Mae Jennie (2), Myers R. Jones (4), Joseph Kraysler (3), Sophie L. Lauffer (6), Wm. Elbert Macnaughtan (3), F. B. McCabe (2), Wm. D. McClure (2), C. W. Miller (2), W. N. Misuraca (2), Harry A. Neuman (4), Edward Ostrom, Jr., (2), Walter E. Owen (5), J. Halstead Patterson (1), Leo Pokras (2), Otto C. Semonsen (2), Samuel P. Ward (2).

Myers R. Jones, *Vice-Chairman.*

## Dr. E. L'H. McGinnis

Edward L'Hommedieu McGinnis is dead. On April 28 peacefully, quietly and painlessly, the soul of my old chum, friend and neighbor passed into the Life Eternal. Stricken by apoplexy when in perfect health and in the midst of his medical and photographic activities, Ted McGinnis breathed his last in a beautiful room in St. Luke's Hospital, the place to which he had given many years of his life. Dr. McGinnis had two slight strokes of apoplexy; one on April 25 and another the following day. He was a bachelor and resided at 202 West 86th Street, New York City, where he had lived for over twenty-five years. He was stricken at his home, and on April 27 was removed to St. Luke's Hospital.

Dr. McGinnis was born in the South, on January 18, 1862. He spent most of his life in New York, but had traveled extensively. He made a memorable cruise on the "Yampa" and his book, "The Cruise of the Yampa" was widely read. He was well known as one of our foremost Electro-Therapeutists and had been greatly interested in cancer research. Some ten years ago he took up photography as a hobby, becoming so proficient that his work became known both here and abroad. He was a great believer in the small 2¼ x 2¼ camera and soft-focus projected prints on chloride paper. Although he resided in New York City most of the time, he always claimed his residence at Southold, Long Island, where his home "The Little Grey House" is one of the show-places of the county. His radio-station is a model and was one of the first to be erected in the vicinity; the pole used was formerly the mast of the noted yacht "Vigilant", which beat the British boat "Valkyrie". Dr. McGinnis was a member of many clubs and medical societies and did much for the little hospital at Greenport, Long Island.

Dr. McGinnis' great charm lay in the almost instantaneous way he had of making friends, and the friendships always lasted. One could not help liking the

genial, happy, smiling face that was always Ted's. As one of his best and closest friends, I feel his death to be a personal and irreparable loss. I cannot close this short sketch of my old chum without a little piece of poetry he often quoted, which showed his own nature to a marked degree:

"It don't pay to do much talking when you're mad enough to choke,
'Cause the word that cuts the deepest is the word that's never spoke.
Let the *other* fellow wrangle and when the clouds have passed away,
Then he'll do a heap of thinking of the words you *didn't* say."

Such, then, was the life of Ted McGinnis—good, dear old Ted. Yes, he has gone, but the spirit of his example can never be erased.

T. W. KILMER.

## Twelve Pictures to Win Around-the-World-Trip

AN amateur photographic contest which offers a trip around the world is not conducted very often. For this reason we urge our readers to read this reference and then write immediately for further details to the Charles A. Mann Realty Corporation, Board of Award, Suite 1001, 505 Fifth Avenue, New York City, or Sorrento, Maine. Moreover, a second trip around the world is offered for an essay, and any contestant may participate in both contests. One trip will be awarded for the best twelve amateur photographs made at Sorrento (near Bar Harbor), Maine; and the other trip will be awarded for the best essay or descriptive article about Sorrento, Maine. Truly, the prizes are worth more than an ordinary effort. Here are the conditions which govern both contests:

AMATEUR PHOTOGRAPHIC CONTEST

*Conditions.*

Consideration and due weight will be accorded to the selection of subjects photographed and the points of concentration, as well as the lights and shadows reflected in the pictures and the technical skill displayed by the camera-operator.

Only photographs by amateurs will be considered, but contestants will not be required to do their own printing and developing.

Each contestant to submit twelve pictures—no more and no less—with his or her name, address and occupation plainly printed on the back of each picture.

Each participant in this Amateur Photographic Contest must register in person his or her full name, address and occupation with our Sorrento representative at the time of making the photographs.

Contest closes November 15, 1925.

ESSAY-CONTEST

*Conditions.*

Consideration and due weight will be accorded to vividness and descriptive force, graphic presentations of luring aspects, conciseness and completeness, as well as literary style displayed by the author.

Each Essay must be typewritten and signed with full name and address of its author.

Participants in the Essay-Contest will not be required to visit Sorrento, although as many as can possibly do so should avail themselves of the first opportunity, and a visit is almost sure to furnish an inspiration. Versatile, indeed, is the one who can adequately portray the attractions of this delightful spot without a personal inspection.

Contestants visiting Sorrento should promptly register their names and addresses with the local representative.

Contest closes November 15, 1925.

The judges who constitute the board of award are too well known for our readers to question this contest in the slightest degree. They are: His Excellency, the Governor of the State of Maine, The Attorney General of the State of Maine, The President of the University of Maine, General Manager of the Bangor (Maine) *Daily Commercial*, Business Manager of Bangor (Maine) *Daily News*, *Photographic Experts from Eastman Kodak Co., Rochester, N.Y., and Camera Craft Studio, Inc., New York City.

The trip around the world will be made on the Cunard Cruising Liner "Franconia", 20,000 tons register, sailing from New York, January 12, 1926, and returning to New York about May 21, 1926. It will be nearly a five-months cruise *de luxe* under the personal direction of Thos. Cook and Son.

Sorrento (near Bar Harbor) Maine, one of the world's most charming summer resorts, judged by its diversity of nature's lavish gifts, high above sea-level and sloping gradually toward the shore, is situated upon an irregular peninsula—jutting out from the mainland at Sullivan—about four miles in length and an average width of about two miles, with an exquisitely picturesque shore-frontage of about ten miles on Frenchman's Bay, Flanders Bay, Sorrento Harbor and East Point Harbor, safely sheltering small craft, yet, deep enough to accommodate battleships which often visit these waters.

We take this opportunity to express the wish that some reader of PHOTO-ERA MAGAZINE will win the coveted the prize and that next winter, when we are facing freezing weather in New England, the fortunate reader will be enjoying the delightful winter-climate of the Far East.

## Central Canada Exhibition to Have Photo-Competition

A SPECIAL feature of the Central Canada Exhibition to be held at Ottawa, Canada, August 22 to 29, 1925, will be the Amateur Photographic Competition for which handsome silver and bronze medals are offered. Further particulars may be obtained from the Central Canada Exhibition Company, City Hall, Ottawa, or from W. H. C. Carriere, Citizen Building, Ottawa. Mr. Carriere is president of the Ottawa Camera Club and will appreciate the hearty co-operation of our readers in making this competition and exhibition a success.

## Beautiful Photo-Coloring by J. D. Hunting

ALMOST at the very foot of the famous White Mountains of New Hampshire, at North Conway, there is an exceptional photographic establishment known as the Hunting Studio. There, many of the most beautiful pictures of White Mountain scenery ever made may be obtained, from postcards to magnificent enlargements. Specimens of Mr. Hunting's work have already graced the pages of PHOTO-ERA MAGAZINE and more are to follow. Our readers know the remarkable beauty and artistic excellence of these pictures. Recently, Mr. Hunting, who is also a painter with long

*The Photographic Experts will not serve in connection with the Essay-Contest.



XUM

European training, has evolved a remarkably beautiful method of coloring his pictures. After examining a number of these, we urge our readers, who may visit the White Mountains this summer, to make a special effort to call at the Hunting Studio at North Conway and rejoice with us that the magnificent scenery of this region is being reproduced so beautifully by a man who has put his heart and soul into the task.

### Dr. T. W. Kilmer Exceptionally Honored

RECENTLY Dr. T. W. Kilmer held a one-man show of forty 11 x 14 multiple-gum prints under the auspices of the Photographic Club of Baltimore City. The highest award and greatest recognition which this club can bestow under its constitution is the Label of Merit. It is given to single prints only, and not to sets as a whole. After careful deliberation at a private showing, a precedent was set without one objection. Every one of Dr. Kilmer's prints, singly, were awarded the Label of Merit. So far, members of the club have received this award only for prints already shown at salons. Very few outside exhibitors have ever received the Label of Merit on their prints. For these reasons we extend our hearty congratulations to Dr. Kilmer and may he continue to receive pictorial honors from clubs of the standing and excellence of the Photographic Club of Baltimore City.

### Hand Coloring of Photographs Simplified

WE are glad to call the attention of our readers to a course in the coloring of photographs which is now being given by the Japanese Water Color Company, Peerless Building, Diamond Place, Rochester, New York. We receive many letters during the year with regard to methods of coloring with watercolors and oils. The course given by this old and well-known company will be under the personal supervision of Charles F. Nicholson who originated the now famous Peerless colors and who is himself an artist of ability. A very attractive booklet, with one hand-colored illustration, gives complete information with regard to the subject-matter and cost of this course. We have investigated the plan of study and we know Mr. Nicholson personally. We are confident that every effort will be made to serve each student well. The booklet, "The Art of Hand Coloring Simplified," will be mailed to any reader of PHOTO-ERA MAGAZINE who will write for it and mention this magazine.

### The Teaching of Shadow-Art and Dancing

FOR some months we have been in touch with an organisation which is endeavoring to combine a well-established school of æsthetic dancing with a school of pictorial photography. The efforts of those interested have borne fruit and a definite course has been outlined and is now offered. Briefly, those who attend the Master Shadow-Art School of Photography, 15 West 16th Street, Indianapolis, Ind., will have the benefit of trained models who will be supplied from the Summer School Classes of the Mlle. Theo Hewes School of Dancing, together with the personal services of Mlle. Theo Hewes. Obviously, the pictorial opportunities are exceptional, especially when it is known that these classes will be held on some of the most beautiful private estates in Indiana.

The pictorial photographic school will be under the personal direction of Hillary G. Bailey, whose photographic work has appeared in *Theatre Magazine, Vogue, Motion-Picture Magazine, Dance Lovers, London Sketch, Shadowland, Art Lover's, Vanity Fair* and other magazines of national circulation. Mr. Bailey is a graduate of De Pauw University, one-time editor of the *Lyceum Magazine* and well-trained in the Fine Arts. We refer to this school at length because we believe that the idea of combining dancing and photography has merit from the pictorial point of view and because trained models will materially assist the photographic student in his work to express his original ideas. Those of our readers who may be interested should obtain further details direct from Mr. Bailey. We believe that a sincere attempt is being made to evolve a helpful course which will lead the student to greater pictorial and professional success.

### Excellent Educational Publicity by Photography

RECENTLY our good friend and subscriber, Alvah G. Clark, who is school photographer for the School of Industrial Arts of the City of Trenton, New Jersey, sent us a really exceptional illustrated folder. Its title reveals its purpose, "Pictures of Students at Work and of the Work of Students". There are thirteen photographs and, with the exception of the front cover and a little text on the back cover, the folder depends entirely upon the illustrations to tell the story. So well is the photography done that we obtain a very clear idea of the courses given at the school and the equipment which is furnished. The illustrations show one or more students actually at work in the following subjects: cast-drawing, machine-shop practice, forging, throwing, period-ornament, modeling, cabinet-making, electric wiring, illustration, automobile-mechanics, etching, carpentry and dressmaking. The lighting-arrangement of the subjects and the technical work is a credit to Mr. Clark and to the splendid educational institution with which he is associated.

### James Cooper

JAMES COOPER, who passed away recently at the Melrose Hospital, Melrose, Mass., had been a resident of Melrose for more than thirty years. He was well known to most of the older publishers and printers of Boston and its vicinity. He was born at West River, Prince Edward Island, October 14, 1845, a younger son of James Barrett Cooper and Jane Bagnall. As his father owned a printing-office, his training in that business began at an early age, and brought acquaintance with all its branches. Coming to Boston about 1864, he worked in several large printing-offices in Boston, being specially associated, however, with the foreign language press. He was a translator of ability in a great number of languages, his knowledge of technical terms being of special value in caring for foreign correspondence. He also provided translations from foreign sources for technical and trade publications. For a number of years Mr. Cooper, who was an experienced amateur photographer, translated important items which appeared in foreign photographic journals for the pages of PHOTO-ERA MAGAZINE. His accuracy and ability to select worthwhile material was of great value and it will not be an easy matter to find an equally well-trained translator. The Editors of PHOTO-ERA MAGAZINE wish to express their sorrow and to extend their sincere sympathy to the members of Mr. Cooper's family in a loss which is felt keenly by all who knew this exceptionally brilliant student and enjoyed his friendship.

## 43d Annual Convention, P. A. of A.

JUDGING by the amount of space sold for the Cleveland Convention, July 27 to August 1, it will have the largest representation of manufacturers and dealers that has ever graced a National affair. Ninety-five per cent of the booths were assigned three months before the convention and the remaining couple did not last another month.

The exhibitors to date include: Albany Card & Mfg. Co.; Ansco Photoproducts, Inc.; Barston Co.; Bausch & Lomb Opt. Co.; Beattie's Hollywood Hi-Lite Co.; Blum's Photo-Art Shop; Burke & James; California Card Mfg. Co.; The Chilcote Co.; A. M. Collins Mfg. Co.; Cooper-Hewitt Elec. Co.; G. Cramer Dry Plate Co.; Defender Photo-Supply Co.; The Dodd Co.; Eastman Kodak Co.; Ficks & Co.; Fowler & Slater Co.; J. S. Graham Co, Inc.; Gross Photo-Supply Co.; Gundlach-Manhattan Opt. Co.; The Halldorson Co.; The Haloid Co.; Hammer Dry-Plate Co.; The Holliston Mills, Inc.; Ilex Opt. Co.; Japanese Water-Color Co.; Johnson Ventlite Co.; L. M. Johnson; E. N. Lodge Co.; Fred M. Lawrence; Lenz Washer Co.; Mallinckrodt Chemical Works; Medick-Barrows Co.; National Carbon Co.; National Lamp Works of Gen. Elec. Co.; Norman Willetts Photo-Supply Co.; Pako Corporation; Photogenic Machine Co.; Presto Mfg. Co.; Sweet, Wallach Co.; Sun-Ray Lighting Products, Inc.; Taprell, Loomis & Co.; Sprague-Hathaway Studios Inc.; Vilas-Harsha Mfg. Co. and Wollensak Opt. Co.

Desk-Space: *Abel's Photographic Weekly; Bulletin of Photography;* Camera Craft Pub. Co.; A. A. Stone Co.

Second vice-president John R. Snow is asking every photographer in the country to send in three or more pictures for the picture-exhibit for each or either of the portrait, the commercial or the pictorial exhibits. Photographs should be mounted but not framed or under glass. Pictures for either group should be wrapped together and labeled for its particular class; the whole then wrapped together for shipping and addressed to Photographers' Convention, Public Auditorium, c/o L. G. Dickey, Mgr., Cleveland, Ohio, and labeled on the outside, "Picture-Exhibit."

President Manahan has arranged his program so that each of the following will be in daily attendance at their respective "Service Booth" during certain hours each day. They will also be on the regular program for lectures or demonstrations.

Mr. John H. Garo, Boston, Mass. We are all familiar with Mr. Garo's ability so that none can afford to miss his message on "How to Improve Our Pictures". He will be in the picture-exhibit one hour each day to give reviews on any picture on exhibition.

Mr. Chas. Aylett, Toronto, Can, will give a demonstration with a woman model, covering composition from the point of lighting and outline.

Miss Virginia D. Whitaker, Pittsburgh, Pa., will give an interesting talk on "How to Vitalize your Business". As manager of the Breckon Studios, she is fully qualified to lecture on successful methods of obtaining and handling business, specialising on the importance of personality.

Mr. Paul Burgess, Waterloo, Ia., President P. F. A. of A. Mr. Burgess will give a talk on Photo-Finishing, covering the subject from his experience as a photographer and a finisher. He will explain how it can be done on a paying-basis.

Mr. Ed. Sheasgreen, Minneapolis, Minn., "Sheasgreen" means "Cost Finding". That's his specialty and he will be ready to report on his survey of seventy-five studios, showing by illustrated charts, the cost of production. Here is an opportunity to learn something about that much neglected side of the photographic business.

### ENTERTAINMENT

The manufacturers and dealers always show us a good time. Here is what they have in store this year: Monday night, Officers Reception and Dance. Tuesday night, Boat Ride or Theater Party, (undecided at this writing). Wednesday noon, Ladies' Luncheon and Entertainment. Thursday night, Annual Banquet and Dance with Entertainment.

### REDUCED RAILROAD-FARES

The customary reduction in railroad-fares on the "Certificate" plan will be in effect this year. By this means, members will be able to save half of the one-way fare for themselves and dependent members of their families, traveling by rail. Follow these instructions,—At the time you buy your ticket to Cleveland, ask for a certificate. *Don't* make the *mistake* of asking for a *receipt*. Present this to the Secretary at the Auditorium for validation. A minimum of two hundred fifty must be received before the railroad representative will validate a single one, so be sure to turn in your *certificate*. When the required number are in the Secretary's hands, they will be validated and then entitle the holder to the return trip at half the one-way fare by the same route used in reaching Cleveland. Reduced fares will not apply to stations having a one-way fare of sixty-seven cents or less.

### P. A. OF A. SUMMER SCHOOL

Due to lack of interest and insufficient registrations, the Trustees have deemed it impractical to hold the Commercial Course this year, same having been scheduled for July 6 to 25.

The Portrait Course will be held as usual from August 3 to 29 at Winona Lake, Ind. This is an opportunity for members of the Association to take an intensified course in portraiture under the able direction of Mr. W. H. Towles of Washington, D.C., for the nominal tuition of $50.00. This price includes the entire expense at the School. A registration fee of $10.00 is required to be mailed to the General Secretary, 722 Bond Bldg., Washington, D.C. Balance of $40.00 is payable at the School.

## Photographic Club of Baltimore City

DURING the past year we have exhibited the works of the following as one-man Exhibits at the Maryland Academy of Sciences and the Baltimore Art Museum:

1. Geo. Rowe, Baltimore, Bromoil.
2. Elias Goldensky, Philadelphia, Chloride.
3. Rabinowitch, New York, Chloride.
4. Laura Gilpin, Colorado Springs, Chloride, Plat, Carbon.
5. Louis Fleckenstein, Long Beach, Calif., Chloride, Bromide.
6. Francis O. Libby, Portland, Me., Gum.
7. Fred. F. Frittita, Baltimore, Gum, Carbon, Chloride.
8. Mrs. Emily H. Hayden, Catonsville, Md., Plat, Carbon, Bromide.
9. Nickolas Muray, New York, Chloride.
10. Sophie Lauffer, Brooklyn, N.Y., Bromoil, Gum, Carbon, Chloride.
11. John H. Garo, Boston, Gum, Carbon, Bromoil, Chloride.
12. Jane Reece, Dayton, Ohio, Bromide, Chloride.
13. Dr. T. W. Kilmer, New York, Gum (June 1–15–25).
14. Mildred Ruth Wilson, New York, Chloride (June 16–30–25).



XUM

# THE PUBLISHER'S CORNER

### Publisher Ordered to U. S. Army Photographic School, Chanute Field, Rantoul, Ill.

THOSE who read the article on the U. S. Air Service Technical School Photographic Department Chanute Field, Rantoul, Ill., which appeared in the June, 1925, issue will understand my pleasure—as Captain, Signal Corps, Reserve, U. S. Army—upon receiving orders to report for fifteen days active duty to Chanute Field, July 19 to August 2, 1925. The opportunity to study the latest photographic methods and equipment is one which I am sure that my readers will appreciate. I have been told that the U. S. Army school at Chanute Field is months ahead of commercial methods and equipment. If so, there will be much to learn with regard to airplane, motion-picture and still-photography; not to mention the strictly military applications of photography.

In view of this military order and the required absence of fifteen days from my desk, I am very sure that my readers will co-operate by not expecting prompt replies to letters from July 19 to August 2. The usual office routine will be in charge of competent assistants who will give all matters within their power prompt attention.

### The Latchstring is Out for You

MANY of my readers will motor through New England during the vacation-season; and, perhaps, they may have the beautiful White Mountain region of New Hampshire as their objective. If so, it is not a great distance out of the way to Wolfeboro from Ossipee, Sanbornville or Alton. Moreover, the trip from Laconia, The Weirs, Meredith and Center Harbor is one of the most beautiful to be found in the entire eastern part of the United States. It offers magnificent panoramas of Lake Winnepesaukee—"The Smile of the Great Spirit"—and the mountain-ranges which rise from its shores. Although the new state-road is not completed entirely around the lake, nevertheless, there are long stretches which are finished and in splendid condition. It is also possible to reach Wolfeboro by water, either by motor-boat or the famous steamer, "Mount Washington", which makes two trips daily around the lake. No matter how the reader may reach Wolfeboro, let me say that he is heartily welcome at the home of PHOTO-ERA MAGAZINE and that it will be a pleasure to render any service possible which will add to the enjoyment of his visit.

### At Number Five Bromfield Street, Boston

THOSE who have called at this address, gone up one flight and opened the door bearing the legend Tremont Camera Exchange, know that there may be found a man who enjoys the confidence and respect of the leading amateur and professional photographers of Boston, Mass. There, too, may be found the finest that there is in high-grade photographic equipment. Best of all, the proprietor, Abraham Feigenbaum, welcomes the visitor with a real smile and in him the camerist may place implicit confidence. Whether a purchase or exchange is consummated or whether the call was made just for a word of expert kindly advice, matters not at all to Abe. He is there to serve and to do it with the customer's best interests always in mind. No wonder that Abe has built up a reputation for square dealing which has reached out far beyond the confines of Bromfield Street. Our readers will find that a call will prove to be very much worth while, and that they will learn more about real high-grade cameras and lenses than they ever did before.

### Between the Upper and Nether Millstones

IF a disinterested person should happen to ask whether or not my readers took a real and active part in co-operating with the Publisher of PHOTO-ERA MAGAZINE to work out policies and standards for the good of all, I am in a position to say "yes" emphatically and to back up my statement with a pile of splendid letters. Let me say right here that the response has touched me deeply and I thank every one of these good friends. I hope that they join me in feeling happy over such a friendly, cordial and delightful correspondence. Furthermore, I feel assured that, even though some of my readers will be disappointed not to see their well-meant suggestions adopted, they will take it all good naturedly and be patient. Frankly, I am between the upper and nether millstones. No matter which way I turn or whatever I do, some good friend will have his suggestions apparently disregarded; but it is really impossible to please all at one and the same time.

This preliminary paragraph leads to the point, namely, how best to conduct our competitions. At this writing the majority seem to favor a happy medium with regard to the monthly subjects. That is, most readers believe that three or four miscellaneous competitions a year are enough and that the others should be devoted to special subjects. This matter has been under discussion for several months and readers have responded from all parts of this country and overseas so that I feel that now a definite program can be arranged with fairness to all. Therefore, let us all try it out for a while, at least. Those who approve will have an opportunity to make an increased effort; and those who disprove will have the opportunity to show that they are good losers and that they will not give up their interest simply because they could not have their own way. I am confident that those who have taken the trouble to write me at length are the type of men and women who make the best of things with a smile and carry on just the same.

### Photo-Era Index to Advertisers

WE call attention to a new venture which we believe will be of service to our readers and to our advertisers. For lack of a better term we shall call it "PHOTO-ERA Index to Advertisers". The purpose is to help the reader find the advertisement of the manufacturer or dealer in whose product or service he may be interested. We hope that this index will prove to be a real help to our readers and advertisers.